

# Clatsop Community College Catalog 2012-2013



CHALLENGE



CREATE



INSPIRE



ENGAGE



ENRICH



# Mission Statement

Our mission is to build an educational community that provides open access to quality learning opportunities that prepare the people of our region for productive participation in civic, cultural, social and economic life.

---

To receive information about the College's degree or certificate programs, write or call:

**Clatsop Community College Admissions Office**  
**1651 Lexington Ave., Astoria, OR 97103**  
**(503) 338-2411 or Toll Free 1-855-252-8767, FAX (503) 325-5738**  
**email: [admissions@clatsopcc.edu](mailto:admissions@clatsopcc.edu)**

**For general information, call 503-325-0910 or access our website at: [www.clatsopcc.edu](http://www.clatsopcc.edu)**

Specific inquiries about the Affirmative Action Policy should be directed to the:

Affirmative Action Officer/Human Resources Director

**Non-Discrimination:** It is the policy of Clatsop Community College that there will be no discrimination or harassment on the grounds of race, color, gender, marital status, religion, national origin, age, sexual orientation, or disability in any educational programs, activities, or employment. Questions or complaints should be directed to Leslie Lipe, Affirmative Action/Gender Equity (Title IX) Officer in the CCC Library, Suite 108B, 503-338-2450; TDD 503-338-2468. The Title II/Section 504 Coordinator, Christine Riehl, is located in the Student Services Center, 503-338-2474.

**Declaración de no-discriminación:** Es la política de Clatsop Community College que no habrá ningún tipo de discriminación o acoso por razón de raza, color, género, estado civil, religión, origen nacional, edad, orientación sexual, o discapacidad en los programas educativos, actividades o en la contratación. Preguntas o quejas deben ser dirigidas al Leslie Lipe, Oficial de Acción Afirmativa / Título IX localizado en la Biblioteca oficina número 108, número de teléfono 503-338-2450, TDD (discapacidad auditiva) 503-338-2468. El Coordinador de la Título II/Sección 504, Christine Riehl, se encuentra en el Centro de Servicios Estudiantiles, número de teléfono 503-338-2474. Para ADA y otras peticiones de servicios llame al 503-338-2474 o para TDD (discapacidad auditiva) 503-338-2468.

# TABLE OF CONTENTS

	<u>Page</u>
Admission to the College .....	4
Money Matters.....	5
Registration.....	10
Academic Information.....	12
Services & Information.....	16
Services, TRiO programs .....	17
Procedures, Student Information .....	20
<b>ACADEMIC PROGRAMS</b>	
Associate of Arts, Oregon Transfer Degree (AAOT) .....	23
Associate of Science, Oregon Transfer Degree in Business (ASOT-Bus.) .....	26
Associate of General Studies Degree (AGS).....	30
Associate of Applied Science Degree (AAS) .....	31
<b>Applied Science Programs:</b>	
Apprenticeship, Construction Trades (AAS) .....	32
Apprenticeship, Electrician (AAS) .....	32
Apprenticeship, Industrial Mechanics & Maintenance (AAS) .....	32
Automotive Technician (AAS and Certificates).....	34
Business: Accounting Technician (AAS).....	36
Business: Business Management (AAS).....	38
Business: Business Professional (Certificates).....	40
Business: Retail Management (Certificates).....	42
Computer-Aided Design & Drafting (One-Year Certificate).....	44
Early Childhood Education (AAS and One-Year Certificate) .....	46
Fire Science (AAS and Certificate) .....	48
Historic Preservation & Restoration (AAS and One-Year Certificate).....	50
Maritime Science: Seamanship (Certificates) .....	52
Maritime Science: Vessel Operations (AAS).....	54
Maritime Sciences Specialized Training.....	56
Medical Assistant (Certificates) .....	58
Nursing Admission Requirements.....	60
Nursing (AAS) and Practical Nursing (4-Term Certificate) .....	62
Truck Driving, Professional (Less-Than-One-Year Certificate) .....	64
Welding, American Welding Society Entry Level (Certificates) .....	65
Oregon Transfer Module (OTM).....	67
<b>REFERENCE</b>	
Course Descriptions.....	69
Sequence of Writing, Reading, and Mathematics Courses.....	123
Faculty/Staff .....	125
Board of Directors .....	126
Index .....	129
Contact List - Department Phone Numbers.....	132
Campus Locations & Map .....	132
Academic Calendar .....	133



## Welcome to Clatsop Community College!

Congratulations on your decision to invest in your future by continuing your education at CCC.

At Clatsop Community College you will experience: small class sizes and personalized attention, a talented and dedicated faculty and staff, quality programs, a diverse student body, and tuition and fees that will literally save you thousands of dollars when compared to other Oregon post-secondary colleges and universities.

Student success is at the core of the mission of Clatsop Community College. To this end, I strongly encourage you to take advantage of the wealth of resources that you have available to you as you pursue your educational and career goals.

So, whether you are working toward an associate or transfer degree, professional certification, career training - or simply following an intellectual interest and passionate desire to learn - Clatsop Community College is here for you.

I hope to see you on campus soon!

A handwritten signature in black ink that reads "Larry Galizio".

Larry Galizio, Ph.D.  
President, Clatsop Community College

# Clatsop Community College



Clatsop Community College is a public, two-year coeducational institution serving northwest Oregon and southwest Washington since 1958. Instruction and training in liberal arts and sciences, professional technical fields, community education, developmental education, and general education are offered. Located at the mouth of the Columbia River in historic Astoria, Oregon, its high-quality, low-cost education serves a district that covers all of Clatsop County and part of Columbia County in Oregon, and Pacific and Wahkiakum Counties in Washington. At Clatsop you can:

- Earn a certificate or degree in a variety of fields leading directly to good careers or further education.
- Complete 90 credits of lower division instruction and transfer to a four-year college or university with junior standing.
- Enroll in classes, workshops and seminars which offer personal as well as occupational benefits.

## **Institutional Student Learning Outcomes**

Students who complete a degree or certificate program will have transferable skills that are essential to any student's success, regardless of degree or employment. Institutional Student Learning Outcomes demonstrated by students graduating from Clatsop Community College include the ability to:

1. Communicate effectively through writing, speaking, and imagery.
2. Solve problems with current and emerging discipline-appropriate technology.
3. Act with integrity.
4. Understand and appreciate diversity.
5. Work competently through knowledge of content, mastery of skills, and effective work habits.
6. Work effectively individually, collaboratively, and as a leader.
7. Solve problems through critical and creative thinking.
8. Demonstrate the skills and tools needed for life-long learning.

## **Accreditation**

Clatsop Community College is accredited by the Northwest Commission on Colleges and Universities (NWCCU), an independent, non-profit organization recognized by the U.S. Department of Education and the Council for Higher Education Accreditation (CHEA) as the Northwest postsecondary regional

accrediting authority on educational quality and institutional effectiveness of higher education institutions. Accreditation by a postsecondary regional accrediting agency qualifies institutions and enrolled students for access to federal funds to support teaching, research, and student financial aid. Clatsop Community College's accreditation from the NWCCU assures students that their work will receive appropriate recognition from prospective employers and other colleges and institutions. You can receive information regarding accreditation by contacting the Office of the President.

## **Convenient, Student-Centered Facilities**

The College's historic main campus in Astoria, on a hillside overlooking the magnificent Columbia River, has undergone extensive redevelopment to provide state-of-the-art laboratories and classrooms, full-accessibility, and inviting, student-centered learning spaces. Columbia Hall opened in January 2010 and houses classrooms and labs, Bookstore, Food Services, Student Government and a community meeting room.

In addition to the main campus, the College's MERTS campus, approximately four miles east of Astoria, houses maritime science, fire science, and industrial technology training facilities for welding/fabrication, automotive, and historic preservation and restoration. The South County Campus in Seaside is the location for small business and economic development services as well as various classes convenient to South County residents.

## **A Sense of Place**

The College district covers all of Clatsop County, bordered on the north by the Columbia River, on the west by the Pacific Ocean, and nestled against the mountains of the Coast Range on the east. This magnificent natural landscape provides inspiration for the College's art students and a living laboratory for its science students. The area's colorful history of exploration, fishing, and maritime trading is also evident in the College's regionally unique Maritime Science and Historic Preservation and Restoration programs. Astoria, the county seat, is said to be the oldest American settlement west of the Rocky Mountains. Its beautiful, Victorian-era homes and commercial buildings, many constructed before the turn of the 20th century, speak to the craftsmanship of a bygone age and have inspired the College's degree program in Historic Preservation.

# ADMISSION

## DEGREE OR CERTIFICATE PROGRAM

---

If you are planning to earn a Clatsop degree or certificate you must apply and be admitted to Clatsop as a certificate or degree seeking student. In addition, many of the special program funding sources such as financial assistance, veterans benefits, and some scholarships require your admission before any funds can be released.

**Admission Criteria:** Clatsop is an open-door, equal-access institution. To qualify for admission, you must be 18 years of age or older, or possess a high school diploma or GED. To be admitted you must complete an admissions application and the COMPASS placement evaluation. The College reserves the right to deny admission to applicants whose admission is judged to be potentially detrimental to the institution.

**Application Dates:** As a prospective student, you are encouraged to apply early to be eligible for early registration dates. The end of the first week of the term is the deadline for completing admissions. You may visit, call, or write the Student Services Center for specific application dates and for assistance with beginning the admissions process.

You may call 503-338-2411 or 1-855-252-8767 (toll free), write to Admissions, Clatsop Community College, 1651 Lexington Ave., Astoria, OR, 97103, or reach us by e-mail at [admissions@clatsopcc.edu](mailto:admissions@clatsopcc.edu). The following steps have been established to ensure that you begin your experience at Clatsop with ease and confidence.

### **Step 1: Complete the Online Admission Application**

The first step in the admissions process is to complete the online admissions application. Go to [www.clatsopcc.edu/getting-started](http://www.clatsopcc.edu/getting-started) and select your profile to apply. When you complete and submit your application, a \$15 application fee will be posted to your student account. This is a non-refundable fee.

If you are not transferring from another institution and have been out of high school or have obtained your GED within the last five years, you should request that your high school transcripts be mailed to the CCC Admissions department. You may request your GED transcripts from the Department of Education in the state where you took your GED test. You may request an application and transcript request forms from the Student Services Center (SSC). The application should be returned to the SSC as soon as possible. You must then contact the SSC to schedule an appointment for the next step, the COMPASS placement evaluation.

### **Step 2: Take the COMPASS Placement Evaluation**

Online COMPASS sign-up is available once you submit your admissions application. A \$15 fee will be posted to your account when you sign up. This fee is refundable up to the date and time of your test, provided you cancel the session by logging in to your student account. Students who have earned a "C" or above in college writing & math may be waived from the COMPASS with proof of coursework. Fax transcripts to 503-338-2504 for COMPASS waiver consideration.

All new degree-seeking students at Clatsop Community College are required to take the WRITING, READING, and MATH portions of the COMPASS Placement Evaluation unless

they have already successfully completed college-level courses in writing and mathematics. If you have been successful in previous writing and/or math college classes, you may ask about an exemption from the COMPASS. The data from the placement evaluation will not be used to deny admission to Clatsop.

The evaluation consists of three basic areas:

1. **Writing Skills** measures your skills in punctuation, grammar, sentence structure, strategy, organization, and style.
2. **Reading Skills** measures your ability to read and understand factual material.
3. **Numerical Skills** measures your ability to understand and work with whole numbers, decimals, fractions, basic word mathematics experience, and algebra.

**Transfer Admission:** If you are transferring from another institution, you should follow the steps listed above. Your official transcript will be submitted for evaluation to the Student Services Center after you have completed the admissions process. Both lower and upper division credits in which you earned a "C" or better will be considered for evaluation.

Upper division credits may be transferred to Clatsop to meet group and elective requirements when it is determined that the upper division course content is essentially equivalent to Clatsop course content. Transfer credit for work done at nonaccredited collegiate institutions will not be granted.

**Readmission:** If you have been admitted and attended Clatsop before, but have been absent for one year or more, contact the Student Services Center to update your status as an admitted student.

**Home Schooled Students:** Home schooled students are welcomed to enroll in courses at Clatsop Community College. In accordance with Oregon Law (ORS 339.030), the college requires home-schooled students under the age of 18 who have not graduated from high school provide an *Exemption from Compulsory Attendance* form (Oregon residents) indicating the student has been granted an exemption from compulsory attendance by the school district in which they reside. For Clatsop County students with an exemption from their local school district, a *College Verification Letter* may be obtained through the Northwest Regional ESD office of Home Schooling Services. To register for classes, the student will need to ensure a current copy of this written exception is on file with the Registrar's Office by submitting documentation to the front desk staff located in the Student Services Center. Non-residents must provide equivalent documentation from their local school district. Procedures for requests for exemption from attendance are stated in Oregon Administrative Rule 581-021-0076.

**International Students:** To be admitted, you must meet the following requirements:

1. A paper-based score of 520 or above, or a computer-based score of 17 or above in each of the four competency areas on the International Test of English Language (TOEFL),

# ADMISSION • MONEY MATTERS

or successful completion of and recommendation from an English Language Institute in the United States, or 30 quarter hours or 20 semester hours of transferable credits with a 2.5 grade point average or better from American colleges or universities.

2. The equivalent of a U.S. high school diploma.
3. A financial statement verifying that you have the financial resources to pay the normal expenses for one year's enrollment. You will be required to submit one year's tuition before final papers for immigration and college admission are issued. See the tuition and fee information in the International Student Packet.

Applicants are accepted to begin in the fall, winter, or spring terms. The application process must be completed two months prior to the term you plan to attend. If you are interested in applying for admission, you should request an "International Student Packet" from the Student Services Center. The packet outlines the application procedures and application deadlines. A \$150. non-refundable international student application fee must be submitted with your application.

This school is authorized under Federal law to enroll nonimmigrant students.

## Payment Obligations

By registering for a class at the College, you have incurred a legal obligation to pay all tuition, fees, and any other charges relating to your enrollment, even if your charges are being paid by another party. Unless you officially withdraw from your courses, you are obligated to make payment by the due date published in the relevant college publications.

If you do not make payment, make arrangements for deferred payment, provide proof of payment in full by another party, or withdraw from your courses by the required date, you will also be responsible for payment of additional late charges and any collection costs and attorney fees.

You are responsible for keeping the College informed of any changes in your mailing address or name.

If you are under 18 years of age, you will be held liable for all charges incurred under Oregon Revised Statute 348.105.

## Payment Options

Payments may be made by any of the following methods:

**Cash:** US funds only.

**Checks:** Local personal checks, non-local personal checks (with check guarantee card), travelers checks, cashiers checks and money orders are accepted. Make payable to Clatsop Community College.

A \$35 charge and all collection costs, including court costs, will be charged on returned checks. After the college has received two returned checks from you, all future payments must be made by cash, credit card, or cashiers check; personal checks will not be accepted. Returned checks of any nature, including NSF and stop payment, do not cancel your financial obligation for payment.

**Credit Cards:** Discover Card, VISA & Mastercard are accepted.

**Financial Assistance/Scholarship:** A signed Clatsop Community College financial assistance attendance form must

be presented to the Student Accounts Specialist in the Student Services Center at the time you pick up your funding.

**Alternate Funding Source:** It is your responsibility to ensure that official payment authorization is received by the Student Account Specialist by the payment due date or late charges will be assessed and/or the account will be sent to collections.

**Installment Payment Plan:** Any student may participate in the Deferred Payment Plan, except those noted below. If you qualify, the following conditions apply:

- you must register using your social security number.
- a \$20 processing fee will be charged.
- a downpayment must be made equal to the application fee and one-third (1/3) of the outstanding balance — after applying all financial assistance, scholarships, and alternate funding source payments.
- the remaining balance, after downpayment, will be divided into two equal installments. A late payment charge of 10% or \$20, whichever is less, will be added to the outstanding balance for each installment that is not made by the due date.
- any balance remaining on the last day of the term may immediately be referred to a collection agency, the Oregon Department of Revenue, or an attorney for collection. Collection and/or attorney fees will be added to the outstanding balance.
- any balance due may be deducted from all financial assistance or scholarships awarded to you.
- you will not be allowed to register for subsequent terms until your account is paid in full.

**Note:** The college's Installment Payment Plan is not available to:

- 1) students receiving full funding from financial assistance, scholarships, or alternate source.
- 2) students owing less than \$100.
- 3) international students.

## Refunds

Before dropping or withdrawing from a class, it is a good idea to see an advisor or student services representative to discuss support services that may make it possible for you to remain in classes.

**General:** Refunds are calculated when a class is dropped online at MyCCC. Refunds will be processed by the Business Office, as soon as possible, beginning the third week of each term.

**Regular Courses:** Students withdrawing from a course more than two days in length, and who comply with regulations concerning withdrawals, may receive a refund of tuition and fees. Withdrawals made within the first week of the term will qualify for a full refund.

**Short Courses:** If you withdraw from classes two days or less in length, you will receive a full refund if the action is initiated prior to a special preregistration deadline or if no such deadline, prior to the beginning of the class. No refunds will be issued after those times.

**Course Cancellations:** If a class is canceled by the College, there will be a 100% refund of the tuition and fees.

**Special Provisions:** Refunds of financial assistance will be pro-rated in accordance with federal regulations and are

# MONEY MATTERS

## TUITION & FEES

---

returned to the financial assistance programs, not to the student. Details are available at the Financial Aid Office.

If you withdraw due to circumstances beyond your control such as job relocation or a medical emergency, you may file a petition for additional refund. The date of receipt of the petition, length of class attendance, and cost of course materials and services may be considered in denying or reducing the amount requested.

### Gold Card

Clatsop Community College students 62 or older may hold a Clatsop Community College Gold Card. Card holders are entitled to a 25% tuition discount. Other fees, including technology and materials fees, are the responsibility of the bearer. Applicants must present proof of age.

The college reserves the right to exempt courses from the Gold Card discount.

### Tuition & Fees

Current tuition and fee information is published on our website at [www.clatsopcc.edu/getting-started/tuition-fees](http://www.clatsopcc.edu/getting-started/tuition-fees). All monies owed to the college for previous terms must be paid before you can register for the current term. Tuition and fee rates are subject to change without notice.

**Technology Fee:** in order to provide the most up-to-date computer hardware and software for students to utilize in the labs and instructional classrooms, it is necessary to periodically replace both the hardware and software. The Technology fee paid by the students helps the College with a portion of these costs. The fee also helps pay for the cost of operating the instructional labs each term. This includes helping pay for lab monitors, internet access, student email accounts, paper, print cartridges, and other current operating expenses. The fee is pro-rated for non-credit classes.

**Residency:** Residents of Oregon will be charged the in-state tuition rate. Residents of Washington, Nevada, California or Idaho will be charged the border state tuition rate. If you wish/need to retain residency in a state other than those listed above, you will be charged the out-of-state tuition rate. Declaration of intent must be made at the time of registration. Per Oregon Revised Statute, the following are considered residents:

- military personnel on active duty and their dependents.
- veterans enrolling within one year of separation from services.
- dependents of parent or guardian who qualifies as Oregon resident.

International students will be charged the international tuition rate.

### Other Fees

**Late Registration Fee:** A late registration fee of \$25 will be charged to you if you enroll after the first week of the term for regular term-length credit classes.

**Refundable Fees (in addition to or in lieu of tuition):** Some classes such as art, integrated manufacturing technology, computer science and physical activity have additional fees. Depending upon circumstances, these fees may be refundable.

**Non-refundable Fees for 2012-2013:** The following fees are non-refundable:

Admissions application.....	\$15
Official transcripts .....	\$5 each
Faxed transcripts .....	\$1 each
Late registration fee .....	\$25
Late fee for not making payment arrangements by end of the first week of classes.....	\$50, plus \$15. per month
Installment Payment Plan processing fee.....	\$20
Returned check fee.....	\$35
International student application fee .....	\$150
Graduation petition fee.....	\$15
Graduation cap & gown fee .....	\$35

Contact the Student Services Center or the Testing Center for current non-refundable fees for the following:

- GED program participation fee
- GED testing fee
- GED retake fee
- COMPASS testing fee (per battery or individual test)



## FINANCIAL ASSISTANCE

Clatsop Community College has a comprehensive financial assistance program that includes grants, loans, and part-time employment for students who qualify. The primary purpose is to provide financial assistance to students who would be unable to attend Clatsop Community College without such help. Financial assistance is available to help bridge the gap between the annual educational expenses and the student's ability to meet them. Each student and his or her parents (if applicable) bear the primary responsibility for meeting educational costs.

**Eligibility:** To be eligible to receive financial assistance, a student must be a U.S. citizen or permanent resident, have a United States high school diploma or GED, or pass an "Ability to Benefit" test, and be admitted to and enrolled in a program leading to a degree or certificate. Students applying for financial assistance must also submit official copies of all previous post-secondary grade transcripts to the Admissions Office for evaluation. Financial assistance (with the exception of some scholarships) is determined by careful analysis of financial resources from information furnished on the "Free Application for Federal Student Aid" (FAFSA). A federal formula calculates a student's financial need. Every effort is made to ensure fair distribution of the resources available to the college.

A student who is in default on any federal student loan is not eligible to receive additional financial assistance until the default has been cleared (See the Financial Aid Office if you need help in clearing up a defaulted loan). A student who owes a repayment of Title IV Financial Aid funds is not eligible to receive additional financial assistance until full repayment (or satisfactory arrangements for repayment) have been made.

A student may have no federal or state drug convictions as an adult for possession or sale of illegal drugs. Students who have been convicted for the first time of possession (within the last year), for the second time of possession (within the last two years), or for the first time for sale (within the last two years) of an illegal drug may establish eligibility by completing a qualified drug rehabilitation program. Students convicted more than once for sale or more than twice for possession of illegal drugs are ineligible for federal funding.

**Applying for Financial Assistance:** Apply for financial assistance beginning in January for the following academic year (summer through spring terms). Students should begin the application process as soon as possible after January 1 regardless of the term they plan to attend. It is important to file early as the awarding process can take two months or more and some funding sources will run out of available funds early in the year.

Students can file a FAFSA (or a Renewal Application, if eligible and have a PIN number) at <http://www.fafsa.gov>

**A student who is in default on a student loan that was taken out while attending Clatsop Community College will not be able to register for any classes at Clatsop until proof of**

**full repayment or documentation indicating that the loan has been rehabilitated and is in good standing is presented to the Financial Aid Office. Either of these situations requires a letter from the Department of Education. See the Financial Aid Office for further details.**

**Financial Need** is the difference between the cost of education and the amount the student and his/her family are expected to contribute, known as the Expected Family Contribution (EFC).

*Cost of education*

*-Expected Family Contribution*

*=Financial need*

The EFC is determined by the federal processor using the information on your financial assistance application. The cost of education at Clatsop is a standard budget that includes regular tuition, fees, books and supplies, housing, transportation and personal expenses. Budgets may be adjusted annually to reflect increased costs and are pro-rated for number of terms you are attending and the number of credits enrolled for each term.

The amount of financial assistance offered depends on the student's financial need and the availability of funds. Supplemental Educational Opportunity Grant (SEOG) and Federal Work Study are limited and awarded first based on need, EFC, income and then on a first-come, first-served basis. Oregon Opportunity Grants are offered as long as state funds are available. Federal Pell Grants, and Federal Direct Stafford Student Loans are available to eligible students/parents all year.

The amount of funding varies with the number of credits a student takes. Students may enroll full-time (12+ credits), three-quarter time (9-11 credits), half-time (6-8 credits) or less than half-time (1-5 credits).

## Financial Assistance Refunds & Returns

For any students receiving federal student financial aid, refunds for tuition and fees (excluding non-refundable fees) are returned to the financial assistance programs and not to the student. A return of federal student financial aid funds that were received by the student for other costs of education, such as living expenses, may be required if a student completely withdraws from all classes before completing at least 60% of the term or receives zero credits. Any refunds for tuition and fees and any financial assistance funds returned by the student will be applied in the following order:

1. Unsubsidized Direct Stafford loans.
2. Subsidized Direct Stafford loans
3. Direct PLUS loans
4. Federal Pell Grants
5. Federal Supplemental Educational Opportunity Grants
6. Other SFA Programs
7. Other federal, state, private, or institutional sources
8. The student

Students are required to notify the College of their withdrawal from all classes by completing a *Registration and Schedule Change Form* and submitting it to Student Services for any term in which they receive financial assistance funding. For any student who completely withdraws before more than 60% of

# MONEY MATTERS

## FINANCIAL ASSISTANCE

the term has been completed, the amount of any refund for tuition and fees, and the amount of federal student financial assistance funds that must be returned by the student are calculated based on the student's withdrawal date. A student's withdrawal date is the last date of attendance as indicated on the *Registration and Schedule Change Form*. For students who fail to complete a *Registration and Schedule Change Form* and submit it to Student Services, or in cases where no last date of attendance is indicated, the exact withdrawal date will be determined by the Financial Aid Office. (Contact the Financial Aid Office for further details on withdrawal date determination.)

If a financial assistance student completely withdraws from all classes before more than 60% of the term has been completed, the College will determine the refund amounts and the amount of financial assistance funds, if any, that must be returned by the student. The College must calculate these amounts, refund any tuition and fees, and notify the student of any amount due within 30 days of the withdrawal date or the date the College determines the student withdrew, whichever is later. The College calculates the refund amounts and the amount of funds that must be returned by the student based on the percentage of the term completed. For more information and examples of how the College calculates these amounts, contact the Financial Aid Office.

A student must return the entire amount due by the end of the term in which he/she withdraws in order to continue assistance eligibility for the next term. A student/parent who cannot immediately return the full amount due may make other arrangements by contacting the College Student Accounts Specialist within 45 days of the date the College notifies the student of the amount due. If satisfactory arrangements are made with the Student Accounts Specialist, the student will continue to be eligible for assistance.

### Student-Owed Repayments

Students receiving cash payments from the financial assistance programs (funds disbursed to the student after payment of tuition and fees, not including the Federal Work Study) who completely withdraw from all classes or receive zero credits may be required to repay a portion of the cash payment according to the percentage of term completed.

No repayment of financial assistance is required for students who complete more than 60% of the term. Students must submit written notification of complete withdrawal from classes by submitting a *Registration and Schedule Change Form* to Student Services. No additional financial assistance will be paid to a student who owes a repayment for early withdrawal until full repayment or arrangements for repayment are made.

*\*\*The last date of attendance is the date used to determine the tuition refund to the Financial Assistance program and the amount of repayment a student owes. If a student fails to withdraw, the last date of attendance is the mid-point of the term or as determined by information available to the Financial Aid office.*

### Satisfactory Progress Guidelines

Clatsop is required by federal and state regulations to define and enforce standards of satisfactory academic progress (SAP) which students must maintain to continue receiving financial assistance. SAP is determined each term based on your cumulative GPA and the total credits you have earned at Clatsop. Refer to the following chart:

Cumulative GPA	Percent of Credits
2.00	Complete 68% of your attempted credits each term.

Students who do not meet the minimum cumulative GPA and/or complete the required number of credits listed above will be placed on academic warning or disqualified from financial assistance. Other guidelines also apply. See the Financial Aid website for further details.

**Maximum Credit Limit:** Federal regulations require that a school define a maximum number of credits within which a student must complete his/her program. At Clatsop a student is expected to complete a one year certificate within 150% of the published length of the certificate or a two year degree within 135 credits. All credits attempted at Clatsop and any credits a student attempted at other institutions will be used in the calculation.

**Appeals:** If you are disqualified for the following: not maintaining the appropriate cumulative GPA and/or not completing the required number of credits by the end of a term; completing zero credits any term; not completing your program within the maximum credits allowed, and you believe you have extenuating circumstances that caused you to be disqualified, you may petition the Financial Issues Committee for a review of your situation. Petitions are available at the Financial Aid Office, and must be submitted by Monday, 5:00 PM, the first week of classes. No petitions are accepted for Summer Term.

### Scholarships and Institutional Funding

The application period for scholarships that are offered through Clatsop will open in spring term (April) for funding for the following academic year beginning in September. See the CCC website at [www.clatsopcc.edu/scholarships](http://www.clatsopcc.edu/scholarships) for details on scholarships being offered and application deadlines, or call the Financial Aid Office at 503-338-2322. The list of scholarships being offered is updated annually in March or April. To qualify for Clatsop scholarships, print out the CCC Scholarship application from the CCC website, complete and submit it to the Financial Aid Office by the deadline indicated.

	<b>Brief Description</b>	<b>2012-13 Annual Award Limits</b>	<b>Enrollment Requirements</b>
<b>Pell Grant</b>	Grant: A federal grant program for undergraduate students who demonstrate need. Does not have to be repaid.	Up to \$5,550.	Must be enrolled in 1-12 or more credits. Maximum amount listed but prorated based on enrollment & eligibility.
<b>SEOG Grant (Supplemental Educational Opportunity Grant)</b>	Grant: A federal grant program for undergraduate students who demonstrate need.	Up to \$900.	Must be enrolled in at least 6 credits. Individual amounts vary based on enrollment and eligibility.
<b>Clatsop Community College Success Grant</b>	Grant: ACCC institutional grant program for first-time CCC freshman and renewable up to 6 consecutive terms. Awarded on a first-come, first-served basis.	Up to \$900/year. Renewable up to 6 consecutive terms if meets 2.75 GPA term requirements.	Must be enrolled in at least 6 credits. Maximum amount listed for full time but will be prorated for half or three quarter time enrollment.
<b>Opportunity Grant</b>	Grant: A grant that is funded through the state of Oregon to Oregon residents or in some cases through Clatsop CC for students who meet income guidelines.	Up to \$1,950.	Must be enrolled in at least 6 credits. Maximum amount listed — adjusted for half or three quarter enrollment in most cases.
<b>Federal Work Study</b>	Work commitment: A federal and college funded program that provides employment opportunities for students who demonstrate need. Jobs may be on or off campus. Students paid once a month. Wage range \$9.65 to \$11.65 per hour.	Up to \$1,500.	Must be enrolled in at least 6 credits. Maximum amount listed but vary based on enrollment & unmet need.
<b>William D. Ford Federal Direct Subsidized Loan</b>	Loan: A federal loan program with interest and repayment deferred until student leaves school. Interest is fixed currently at 6%. Student must demonstrate need. Money is borrowed and does have to be repaid.	Up to \$3,500 for freshman and \$4,500 for sophomores.	Must be enrolled in at least 6 credits.
<b>William D. Ford Federal Direct Unsubsidized Loan</b>	Loan: A non-need based federal loan program with principle repayment deferred until student leaves school. Interest is fixed currently at 6%. Student is responsible for the interest.	Up to \$2,000 for dependent student, \$6,000 independent student based on cost of education.	Must be enrolled in at least 6 credits.

*\* The above award amounts are for the 2012-2013 academic year and are subject to change. Please check with the Financial Aid Office for more information.*

# REGISTRATION

---

## Registration Information

The college produces a schedule of classes prior to the beginning of each term. The schedule contains current course offerings, location of classes, and tuition and fees charged for each class, and is available online at [www.clatsopcc.edu](http://www.clatsopcc.edu). Classes and workshops of less than one term in length may be advertised in the schedule of classes or individually as they occur. To register, use your online MyCCC account and pay for tuition and fees.

## Degree-Seeking Students

If you plan to earn a Clatsop certificate or degree and/or are receiving financial assistance, you must complete the admissions process. Admitted students are provided information about college degrees and services, are evaluated for correct placement in courses, and are assigned to an academic advisor. Your advisor will assist you in making informed decisions concerning career planning, in selecting appropriate courses, and in referrals for help with financial or personal issues. See the admissions section of this catalog for more information about becoming an admitted student.

A full-time certificate/degree-seeking student will usually have to complete 15 credits each term in order to complete certificate/degree requirements within three or six terms. If you need college preparatory work, plan to spend an additional term or terms to ensure that you are prepared to meet degree requirements. New degree-seeking students will be assisted with registration during their first scheduled advising session. Returning students are encouraged to register online during the announced early registration periods.

## Non-Degree Seeking Students

If you do not intend to complete a degree or certificate, you are still encouraged to register prior to the beginning of the term. No approval is required except for those courses which require instructor permission for registration; however, you should follow course prerequisites as noted in the college catalog and term schedule. If you are unsure of whether you have the academic skills to be successful in a college course, you may arrange for a reading, writing, or math placement assessment. Contact the Student Services Center at 503-338-2411 for more information or to schedule an assessment session.

Your registration is complete when you have paid tuition and fees or when other funding arrangements have been completed.

## Students Under the Age of 18

The College is part of an array of educational services offered throughout Clatsop County. The College does not usually serve students under the age of 18 unless they are high school graduates. However, provisions have been made, in exceptional circumstances, to allow the enrollment of younger students.

Examples of these unique circumstances include:

1. By special contract with a local school district.
2. Through pre-approval of specific classes which are open to younger students.
3. Simultaneous enrollment.
4. By special petition.
5. For GED preparation.

Specific policies and procedures are available from the Student Services Center. Parents or Guardians of dependent students are responsible for payment of tuition and fees.

## Late Registration

If you wish to register for regular term length courses after the first week of the term, you must obtain instructor approval and pay a late registration fee.

## Changes After Registration

You may make course changes at the Student Services Center. If you are a degree-seeking student you should consult your academic advisor before making any changes in your schedule. If you are adding a course the second week of the term, you must also obtain the approval of the instructor. The instructor will give you a code to use to make these changes using your MyCCC account. See the "Audit" section of this catalog for more information. If you are receiving financial assistance, you should check with the Financial Aid Office prior to dropping a class to avoid losing funding. Funding from scholarships or outside agency sources may also be adversely affected by dropping a course.

For information regarding timelines for dropping courses in order to avoid a notation of "W" on your academic transcript, please refer to the following section on withdrawal.

## Withdrawal

You have the responsibility to formally withdraw from courses for which you have registered, but do not intend to complete. Otherwise, you risk receiving an "F" for the course. Instructors do not withdraw students from courses. Withdrawal from one or more courses or a complete withdrawal from all courses will affect your financial assistance eligibility. It may also affect funding for students receiving scholarship funds or funds from outside agencies. Contact the Financial Aid Office for more information.

# REGISTRATION

You are expected to withdraw from classes in person at the Student Services Center using a *Registration and Schedule Change Form* or using your MyCCC account. Under exceptional circumstances, you may withdraw by writing a letter of explanation to the College's Registrar.

No record of the course will appear on your transcript if the withdrawal is done before the end of the fourth week. A notation of "W" will appear on your transcript for the course if the withdrawal is submitted from the fourth through seventh week.

The end of the seventh week of the term is the deadline for withdrawing from an individual course, as well as changing audit or credit status (*see note below under "Audit"*).

When circumstances are beyond your control, you may completely withdraw from the term, that is: drop all courses for that term. Withdrawal must be completed by the last Friday of classes prior to final exam week. Contact the Student Services Center for more information.

## Audit

Students who do not wish credit for a course may register for audit. The following conditions apply to course audits:

1. Some courses may not allow auditors.
2. Instructors accepting auditors may expect those students to meet some or all of the same course requirements as credit seeking students. These requirements will be made clear on the course syllabus or by instructor.
3. An audit does not satisfy requirements for entry into courses where prerequisites are specific. For example, auditing Writing 121 will not satisfy the prerequisite for Writing 122.
4. Audited courses do not meet requirements for enrollment status required for Veterans, Social Security benefits, or Financial Aid. For example, a student needs twelve credits to be a full-time financial aid student, none of the twelve credits can have an audit status. Students should be aware that scholarships or funding from outside agency sources may be adversely affected by auditing a course.
5. Registration, tuition and fees are the same as for credit courses.
6. Changing from audit to credit requires instructor approval.
7. Changing from audit to credit or from credit to audit must be completed by the end of the 7th week of the academic quarter except for summer quarter, where changes must be completed by the end of the 6th week.

## Transcripts

Your student transcript lists courses in which you are enrolled each term. This is your permanent, cumulative record of enrollment and grades. Courses dropped prior to the fourth

week are not recorded. Honor Roll, Dean's List, and Phi Theta Kappa are also noted on your transcript.

You may obtain a transcript by submitting a written request to the Student Services Center. There is a \$5.00 fee for official transcripts. There is no charge for unofficial transcripts. Transcripts may be faxed for a \$1 fee. Your transcript will not be issued if you have defaulted on a student loan or have financial obligations to the College including college-owned equipment, supplies or library books or materials.

If you retake a course for which you have already received a grade, the later grade will be transcribed and used in computing your grade point average (GPA). The earlier grade is removed from computation of the earlier term GPA and the cumulative GPA. You will be allowed two retakes to improve your grade. Subsequent retakes will be transcribed, but may not be used to meet degree requirements.

To ensure that your GPA is recalculated, you should inform the Student Services Center of the retake and request that the GPA be recomputed. Notations of P, I, NC, W, and audit are not used in computation of the grade point average. Retakes of courses for which you previously received non-passing grades, or grades lower than required by your program, can be funded by financial assistance. One retake of courses for which you previously received a passing or required grade can be funded.

## Student Records

You have access to your records defined by the College as educational records. Examples of some student records are your admission application, transcript, and financial assistance data. For more information regarding access to your student records and other data the College is required to provide to you, see the "Student Consumer Information" section on page 21 of this catalog.

You can access your grades online through your MyCCC account. For a copy of your transcript, complete a request form and drop it off, or mail it to the Student Services Center with a check for \$5 for an official copy, or we will fax for \$1. There is no charge for unofficial transcripts.

## Directory Information

Clatsop Community College has designated the following student data as "directory" information and it may be released without prior written authorization from the student: name, address, major field of study, terms of attendance, degrees and awards received. In addition, The Solomon Amendment requires by law that the College release a student's name, address, telephone number, date of birth, education level, major, and degrees received, upon request from recruiters of the branches of the United States military.

If you don't want information released, you must indicate so in writing by completing a *Request for Non-Disclosure of Student Information Form*. These forms are available at the Student Services Center.

# Academic Information

---

## Degrees

The College offers four degrees:

- Associate of Arts, Oregon Transfer (AAOT);
- Associate of Applied Science (AAS), in many majors;
- Associate of General Studies (AGS); and
- Associate of Science, Oregon Transfer Degree in Business (ASOT-Bus).

Specific information may be found on pages 23-68. You may earn more than one degree at Clatsop Community College. To be awarded an additional degree or degrees, however, you must complete at least 24 credits of coursework different from each of the previous degree(s). In addition, you must fulfill all the specified requirements for each new degree. Degrees will be awarded once you have completed the graduation petition process.

## Certificates

The College also offers structured state-approved certificates in particular Applied Science fields. Specific requirements are listed in the program descriptions in this catalog. A 1-year certificate may not be awarded concurrently with or subsequent to a degree in the same applied science program.

There are different types of certificates offered at the College. They are in the following categories:

- Career Pathway Certificate: typically 12-18 credits of coursework that provides a specific subset of skills.
- Less than One-year Certificate: less than 45 credits of coursework.
- One-year Certificate: requires a minimum of 45 credits.

At least 12 credits must be earned at Clatsop to receive any of these certificates from the College. Additionally, there are mathematics, writing, and human relations requirements for the Less than One-year, and One-year Certificate programs. Please see your advisor or the Student Services Center for further information.

## Warranty

Clatsop Community College warrants the competencies you develop while obtaining an Associate of Applied Science (AAS) degree. If, during the two years immediately following completion of the AAS degree requirements, you need to upgrade skills or acquire additional training in your professional/technical specialty, certain eligible courses may be attended tuition free on a space-available basis. All fees remain your responsibility.

Eligible courses include any which meet major requirements in the degree program under which you graduated and occupational supplementary courses determined to be in the applicable occupational specialty. The Vice President for Academic and Student Affairs may approve appropriate Professional-Technical supplementary courses on an individual basis.

## Academic Advising

When you are admitted to a certificate or degree program, the college provides you with an academic advising to assist with your exploration of career and educational goals; development of a plan for completing degree requirements; and selection of courses each term. Advisors can also provide referrals to help you resolve financial or personal issues, and assist you in understanding institutional policies and procedures. You are encouraged to meet with your advisor prior to registering.

## Academic Terms

The College is on a quarter term system, meaning there are four times during the year when most course offerings begin and end. The major course offerings are provided in the fall, winter, and spring terms. For specific dates for when courses will be offered, students can view an academic calendar on the inside back cover of this catalog. Students should also refer to the Clatsop Community College Schedule of Classes, available at [www.clatsopcc.edu](http://www.clatsopcc.edu), for detailed information about what classes are offered during each term in the academic year.

The College offers a limited selection of course offerings during the summer. Lower division transfer, professional-technical, self-improvement and basic skill courses are offered.

The College is closed on Fridays July through Labor Day.

## Credit

Your credits are earned on the basis of your successful completion of course requirements. The number of credits assigned to each course is usually related to the number of hours you spend in class. One credit is earned for each hour of lecture/discussion class attended per week. Laboratory and studio experience usually require two or three hours of attendance for each credit earned. Most courses have been assigned a definite number of credits per term, but some have been given variable credits. In some variable credit courses, the number of credits will be determined by your progress during the term.

## Credit by Examination

Credit by examination recognizes alternative routes to obtaining college-level knowledge and skills independent of the classroom. The intent of this method for awarding credit is to enable you to proceed through an established program in accordance with your present ability and knowledge. To ensure that you have achieved at the same level as any other student completing the course, the following conditions have been set forth for gaining credit through examination:

1. You must be enrolled in a diploma or degree program before a credit by examination petition (challenge) can be initiated. Exceptions may be granted by the Vice President for Academic and Student Affairs.
2. You must submit a formal application approved by the Administrative Assistant to the Vice President for Academic and Student Affairs, your advisor, and the instructor who will administer the examination.

# Academic Information

3. You may elect to challenge a course in which you are currently enrolled, provided the class is formally dropped prior to the beginning of the fourth week of classes. Courses in which you have previously enrolled and received a grade may not be challenged.
4. You may not challenge more than 24 credits. Credits earned through examination cannot be counted for the degree completion requirement of "complete at least 24 credits at Clatsop Community College". A maximum of six credits, taken by examination, may be in cooperative work experience.
5. The faculty of the College offering the instruction in the challenged course will be responsible for the formulation, administration, and compilation of the results of the equivalency test in accordance with other provisions of this policy. The examination may be either oral, written, performance, or a combination of these methods of evaluation. Under no circumstances will the requirement for credit by examination exceed the pre-established criteria for the course.
6. Examination for course credit may be taken only once. If successful, you will receive the grade of pass and the letter "P" will be entered upon your transcript. If unsuccessful, you will receive a "N/C" on your transcript. Credits so earned will not be calculated in your grade point average.
7. Courses involving laboratory or shop experience may be challenged in the same method as any other course; however, you must supply written references from qualified individuals indicating your sufficient background experience to cause a waiver of the laboratory or shop time.
8. Credits earned by examination may not exceed the total credits previously earned at Clatsop Community College in regular course work. Should a challenge be approved during your initial quarter at Clatsop, credit for the challenged courses will not be applied until evidence of your successful completion of regular course work is entered into your transcript.
9. You will be assessed a nonrefundable charge of 50 percent of the tuition for each course challenged. A year-long course series, which must ordinarily be taken in sequence, and which, at the discretion of the instructor, may be evaluated by a single comprehensive examination, may be handled as a single challenge for the standard fee. Upon successful completion of the course challenge examination, you must pay the remaining 50 percent tuition before the course(s) will be entered on your transcript.

All the conditions set forth above are applicable to each student requesting course credit through examination. Any waiver of these conditions must be at the approval of the President of the College and these conditions are subject to change. For information or assistance regarding Credit by Examination, call the office of the Vice President for Academic and Student Affairs at 503-338-2440.

## Credit for Prior Learning

You may earn college credit by documenting learning acquired through job experiences, travel, hobbies and family and civic responsibilities. Start by enrolling in CPL 120, Credit for Prior Learning; it will teach you how to develop a portfolio of your activities. A maximum of 22 credits earned through development of your portfolio and six credits of CPL 120 may be applied to an associate degree.

The CPL course is an on-line course taught by an instructor at another campus. You must have your own computer, internet service provider and web browser. Call the Distance Learning Coordinator at 503-338-2341 for information, permission to register, and information on having your portfolio evaluated.

## Work Experience (Cooperative Education)

Work Experience (Cooperative Education) is a nationally recognized program granting academic credit for various supervised internships. Work Experience staff advise you in the program and assist you with registration.

Work Experience staff work with local employers to find learning and career opportunities for students. In addition, staff meet with you and your supervisor at the job site at least twice during the academic quarter to discuss your progress toward completing your learning objectives. Call 503-338-2480 or email [cwedirector@clatsopcc.edu](mailto:cwedirector@clatsopcc.edu) for more information.

**Companion Classes:** A work experience seminar course is offered to augment the cooperative education experience. If you are enrolled in a work experience course, you must take the work experience seminar course concurrently, unless you have completed it in a previous term.

**Job Placement:** The Career Center receives job opportunities from employers. Local positions are posted in the Career Center located in Towler Hall.

## Independent Study

Clatsop Community College does not promote the use of independent study courses but will allow, under specific circumstances, your utilization of this mechanism only after all other alternatives have been explored.

It is the prerogative of the instructor to approve these courses. If the instructor genuinely feels that circumstances warrant such an expediency, and after other avenues have been exhausted, the instructor may petition the office of the Vice President for Academic and Student Affairs on your behalf, detailing the proposed course. Independent Study forms are available in the Office of Instruction. Call 503-338-2440 for additional information.

# Academic Information

---

## Transfer Credit

Coursework for which you earned a "C" or better grade from a regionally accredited institution may be accepted to meet degree or certificate requirements at Clatsop Community College. Transfer coursework, although it may be used to meet requirements, will not be included in your Clatsop Community College cumulative grade point average.

## Continuing Education Units

The college works in conjunction with various professional associations and employers to offer continuing education units (CEUs) as a form of certification for the successful completion of specified occupational instruction. The CEU is a measure of the amount of professional upgrading instruction that you have successfully completed. Contact the Community Education office for more information about specific classes.

You may not earn CEUs and academic credit for the same class. Therefore, you may not pay for classes awarding CEUs with financial assistance funds and CEUs do not count toward financial assistance satisfactory progress eligibility or toward degree completion.

## Course Numbering/Grading

1. Most of the courses that are fully transferable to Oregon University System universities are graded on the A - F system. A few courses are graded pass or no credit (P/NC). Information regarding grading is available in the course syllabus which the instructor distributes during the first week of class.
2. Courses that are primarily professional-technical in nature are designed to prepare you for particular skills and trades. Most of these courses are graded on the A - F system. An exception is the Work Experience classes which are graded pass or no credit (P/NC).
3. Alpha-numeric courses below 100 are not designed for transfer to other colleges or universities within the Oregon University System. (Most of these courses are graded P/NC.) A few are graded on the A - F system.
4. Alpha-prefixed courses, such as MUS0511, which have a zero (0) in the fourth place, are non-credit general self-improvement or hobby and recreation courses.

## Grading Policies

By Friday of the first week of classes each term, you will be provided a course syllabus for each credit class in which you are enrolled. The course syllabi will provide required and recommended course syllabus components established in the Office of Instruction Course/Instructional Program Handbook.

If you understand the objectives and know how well you have done in achieving them, you will generally not be disappointed with your grades.

Graded work at Clatsop Community College is based on the following guidelines (grade point value is also indicated):

### A - Excellent (4.0)

1. Scores superior on examinations and/or assignments.
2. Shows independent thinking in terms of the subject matter of the course.
3. Shows a grasp of the relationships among various parts of the subject.
4. Asks questions which are appropriate and which stimulate relevant discussion by the instructor and/or students.
5. Complies with the stated performance regulations of the instructor.

### B - Commendable (3.0)

1. Scores above average on examinations and/or assignments.
2. Presents sound ideas on subject matter of the course.
3. Shows a grasp of the general organization of the subject matter.
4. Asks appropriate questions which clarify the presentation of the subject.
5. Complies with the stated performance regulations of the instructor.

### C - Satisfactory (2.0)

1. Scores average on examinations and does average work on assignments.
2. Presents evidence of a grasp of the subject matter of the course.
3. Asks relevant questions.
4. Complies with the stated performance regulations of the instructor.

### D - Minimal (1.0)

1. Scores below average on examinations; completes assignments at below average level, or fails to complete them.
2. May follow the course of discussion by others, but contributes little.
3. Shows some grasp of portions of the subject matter but little grasp of the overall picture.
4. Complies with the stated performance regulations of the instructor.

### F - Unacceptable (0.0)

1. Scores unsatisfactory on examinations; completes assignments at an unsatisfactory level or fails to complete them.
2. Shows little or no grasp of the subject matter.
3. Does not comply with the stated performance regulations of the instructor.

### Aud - Audit (N/A)

You may register for audit if you do not wish to receive credit for a course. For more information see page 11.

### I - Incomplete

At your request an instructor may award an incomplete if you have completed at least 70 percent of the course work and



# Academic Information

shown an intent to finish the required work. An instructor will provide you with a statement describing the work needed to complete the course, and a copy of such statement will be maintained in the Student Services Center.

An incomplete does not imply an offer of tuition-free re-enrollment in the class. You will be allowed a maximum of one academic term to correct deficiencies noted on the statement of incomplete status. Incompletes received for spring term may be corrected during fall term of the following academic year. Under extenuating circumstances as approved by the Vice President for Academic and Student Affairs, you will be allowed an extension beyond the deadlines noted above for finishing an incomplete. Incompletes are temporary notations. If courses are not completed, an instructor-designated grade will be issued.

## **NC - No Credit**

A designation used when you do not do passing work in a pass/no credit class.

## **P - Pass**

You may earn credit for a course which is graded on a pass/no credit basis. The "P" grade denotes a level of accomplishment of "C" or higher. You may apply a maximum of 24 credits of "pass" grades toward a degree.

## **SP - Satisfactory Progress (N/A)**

Student has made appropriate progress toward course skill outcomes in a course for which well-defined skill progress standards are established. This grade is available only in courses so designated. This grade denotes progress sufficient to qualify for financial aid, but is not included in the computation of the GPA. The student must re-enroll in the course in a subsequent term to earn a final completion grade and for the course to qualify as a prerequisite for enrollment in courses requiring mastery of skill outcomes.

## **W - Withdrawal**

A student-initiated withdrawal. See page 10.

## **Z - Failing, Did Not Complete Course (0.0)**

Student did not attend or participate in the course enough to demonstrate any level of performance and failed to complete a student-initiated withdrawal.

## **Academic Standards**

To graduate from Clatsop Community College with a degree or certificate you must have a cumulative grade point average of 2.0 for all Clatsop Community College coursework.

If you are receiving funding from an external source such as financial assistance, scholarships or Veterans benefits you will be required to maintain satisfactory academic progress in order to continue to receive benefits. (Review the Financial Assistance, Scholarships, and Veterans sections of this catalog for details on satisfactory progress requirements.)

## **Graduation**

To graduate from Clatsop Community College you must file a graduation petition with the Student Services Center. Due

dates for petitions are printed in the Student Handbook, which is available in the Student Services Center.

No student shall be issued a degree or certificate who has not earned a cumulative grade point average of 2.0 for all Clatsop Community College coursework and completed a minimum of ninety pre-approved credits for an Associate Degree or a minimum of forty-five credits for a Certificate. Please check specific degree and certificate requirements. You must be admitted to a degree or certificate program to graduate. (See Student Services for information). You must complete at least 24 credits at Clatsop for a degree (12 credits at Clatsop for a certificate).

You may graduate under the academic requirements in effect in any year in which you were enrolled in any course which counts toward a Clatsop Community College degree or certificate, but not to exceed five years prior to your graduation date. You may not mix requirements from two or more academic years.

**Multiple Degrees:** You may earn more than one degree at Clatsop Community College. To be awarded an additional degree or degrees; however, you must complete at least 24 credits of coursework different from each of the previous degree(s). In addition, you must fulfill all the specified requirements for each new degree.

**Student Responsibility:** It is the responsibility of you, the student, to know and to observe the requirements of your degree or certificate program and the rules governing academic work. Although your advisor will attempt to help you make wise decisions, the final responsibility for meeting the requirements for graduation rests with you.

**Graduation Fees:** A \$15 graduation petition fee is payable to the cashiers in the Student Services Center, and payment is required prior to submitting your graduation petition to the Student Services Center. A \$35 cap and gown fee must also be paid by all students attending commencement.

## **Honors and Awards**

Clatsop Community College recognizes superior academic achievement and distinctive service by:

Transcribing term honors and recognition:

- Dean's List (Degree-seeking; 12 or more graded credits; 3.75 to 4.00 grade point average {GPA})
- Honor Roll (Degree-seeking; 12 or more graded credits; 3.5 to 3.74 GPA)
- Phi Theta Kappa eligibility (12 or more graded credits and a 3.50 GPA first term; 3.00 GPA thereafter)

## **Graduation With Honors/High Honors**

At commencement, qualifying students are recognized as meeting requirements for graduation with honors or high honors. To qualify for honors, you must have a cumulative grade point average of 3.50 to 3.74. To qualify for high honors, you must have a cumulative grade point average of 3.75 to 4.00. Transfer work may meet requirements for coursework for which you earned a grade of "C" or better but is not computed in your cumulative grade point average.

# Academic Information • Services

---

## Conferring other honors and awards:

- ASG recognition cords (ASG Officers at graduation)
- President's Cup
- Student Body Plaque
- Helen Wheeler Extra Mile Award
- Unsung Student Hero Award
- Instructional Council Award (highest Clatsop GPA for graduating associate degree recipient)
- Outstanding Club Award
- Certificates of Appreciation
- Department awards
- Graduate Marshals
- Phi Theta Kappa cords at graduation

## Dora Badollet Library

The Clatsop Community College Library is the gateway to the world of information. Services available at the Library include online databases with journals, magazines, ebooks, streaming video, and books, as well as Internet access, distance education, and more. The Library staff is available to help students with research questions and projects. Study spaces include quiet areas, as well as areas for group and collaborative study. Three study rooms are available for checkout, in addition to a media room for individual or group viewing of DVDs and VHS.

The primary mission of the Library is to support the college curriculum; the Library collection therefore contains materials on a wide scope of subjects in the liberal arts, social sciences, sciences, and nursing, as well as technical and vocational fields. To search library resources, renew items, or find out more about the Library, including current hours and location, visit <http://lrc.clatsopcc.edu> or call 503-338-2462.

## Testing Center

The Testing Center administers a variety of tests, including the college placement test (COMPASS) and GED tests. Tests for distance education coursework can also be taken in the Testing Center by making arrangements with both the originating institution and the Testing Center staff.

Tests are administered by appointment only. For more information call 503-338-2426.

## Distance Education

Clatsop Community College offers online classes to serve students unable to enroll in traditional on-campus courses.

Online courses allow students to take classes at their convenience from home or workplace. Students need access to a computer with internet browser software and an Internet Service Provider account to access course material, to turn in assignments, and to communicate with the instructor and classmates. Some of these online courses are provided by colleges around the state, but most are developed by instructors here on-campus. Contact Kirsten Horning in the Library for details, 503-338-2341.

## Degree Partnership Programs

### Oregon State University (OSU) and Portland State University (PSU)

The Degree Partnership program with OSU and PSU offers Clatsop Community College (CCC) students the opportunity to be jointly admitted and eligible to enroll concurrently at OSU or PSU and CCC. Admission applications are required for both schools. Applicants must select the "degree partnership program" when completing the university's admission application, and must meet OSU's or PSU's standard admission criteria. For more information about the OSU/CCC or PSU/CCC Degree Partnership Program contact the Student Services Center at 503-338-2411.

## Apprenticeship Training

Related classroom training for registered apprentices is coordinated through the Office of Instruction. It is taught according to Oregon's Law and Plan of Apprenticeship and Training, the U.S. Department of Labor, and the Oregon State Apprenticeship Council. Classes cover technical areas of the trades and are intended to complement skills learned on the job. Apprenticeship related training offered through Clatsop Community College currently includes plumber, inside wireman, plant electrician. This program is for indentured apprentices only. Call 503-338-2352 or 503-338-2402 for information.

You can obtain information on how to become an apprentice from the Oregon Bureau of Labor and Industry, Apprenticeship Training Division, 800 NE Oregon St. #32, Portland, Oregon 97232; telephone 503-731-4072 ext. 270; Clatsop Community College, 503-338-7696.

## Tutoring

Need help with your math homework? At the Math Assistance Center (MAC) in Towler Hall room 211, qualified tutors can assist you with any level of mathematics. There are textbooks and solution guides available, as well as a bank of computers where students in MTH 10, 60, 70, or 95 can work on ALEKS. To use the MAC, you just need to sign up for a 0-credit, no-cost class, see one of the tutors for details. You can sign up at any point during the term. Hours are posted. Tutoring for writing and other subjects is available in Columbia 115.

## Career Services

Assistance with career planning, choosing a college major, and finding career-related internships is available to all CCC students. Students with clear career goals complete college degrees at much higher rates than "undecided" students.

Available services include: individual career counseling with a qualified Career Counselor; personality and interest assessments; a career library; and assistance using relevant career information websites including Oregon CIS (Career Information System), O\*NET and OLMIS.

Call 503-338-2480 to schedule an appointment or request assistance with any aspect of the career planning process. You can also email questions to [lnyberg@clatsopcc.edu](mailto:lnyberg@clatsopcc.edu).

# Services **Grant Funded**

## SECONDARY EDUCATION

### EDUCATIONAL TALENT SEARCH

Educational Talent Search (ETS) identifies and assists students in 6th through 12th grades who have the potential to succeed in higher education. ETS provides academic, career, and financial advising to its participants and encourages them to graduate from high school and continue on to the postsecondary institution of their choice. Educational Talent Search also serves high school dropouts by assisting them in reentering the education system to complete their education.

ETS services include:

- Academic, financial, career, or personal counseling including advice on entry or re-entry to secondary or postsecondary programs
- Career exploration and aptitude assessment
- Tutorial services
- Information on postsecondary education
- Exposure to college campuses
- Information on student financial assistance
- Assistance in completing college admissions and financial aid applications
- Assistance in preparing for college entrance exams
- Mentoring programs
- Special age-appropriate activities for sixth, seventh, and eighth graders
- Workshops for the families of participants

Educational Talent Search is 100% funded by the U.S. Department of Education TRiO programs. For information contact the Educational Talent Search office 503-338-2370.

### UPWARD BOUND

Upward Bound (UB) provides advising, tutoring, mentoring, cultural enrichment and academic instruction for eligible students in the 9th through 12th grades. Through academic year and Summer Academy activities, UB provides

opportunities for participants to succeed in their pre-college performance and ultimately in their higher education pursuits.

Upward Bound services include:

- Academic, financial, and personal counseling
- Exposure to academic programs and cultural events
- Tutorial services
- Mentoring programs
- Information on postsecondary education opportunities
- Assistance in completing college entrance and financial aid applications
- Assistance in preparing for college entrance exams
- Summer Academy, a college simulation experience including instruction in reading, writing, study skills, and other subjects necessary for success in education beyond high school

Upward Bound is 100% funded by the U.S. Department of Education TRiO programs. For information contact Upward Bound at 503-338-2370.

## POSTSECONDARY ASSISTANCE

### Plus/SSS Program

The Student Support Services TRiO grant, known at Clatsop Community College as the Plus Program, serves the academic and personal needs of first generation and low income college students and students with disabilities. The Plus Program provides in-depth services to students so that they may succeed in college and graduate and/or transfer to a four-year college or university. For further information contact Joanie Weatherly at 503-338-2307 or email [plus\\_program@clatsopcc.edu](mailto:plus_program@clatsopcc.edu).

## Carl D. Perkins Career and Technical Education Act of 2006

The Carl D. Perkins Career and Technical Education Act of 2006 provides federal funds to develop the academic, career, and technical skills of high school and community college students by:

- developing challenging academic standards;
- integrating academic and professional technical instruction, and linking high school and community college education;
- developing, implementing, and improving professional technical education;
- providing professional development to improve professional technical education programs, services and activities.

Specifically, the grant provides for improving the linkage between

the area high schools and Clatsop Community College in the following program areas:

- Fire Science
- Business & Management
- Health Occupations
- Industrial & Manufacturing Technologies

Funding is available for staff training and curriculum development, including inservice training of both professional technical and academic instructors working with professional technical students for integrating academic and professional technical education.

# Services

## **Business Services:**

***Providing Support To Our Business Community.***

### **Workforce & Customized Training**

The mission of Workforce & Customized Training is to assist businesses with identifying their learning needs and delivering training to ultimately increase performance. For example, training topics may include hiring and supervising, job analysis, customer service, computer software, new employee orientation, safety and regulatory, hospitality service, medical, and industrial and manufacturing. In addition, there is pre-employment preparation for job seekers, refresher workshops, and skill upgrading. Training is geared to meet the scheduling needs of business and staff, and the general public. For more information call 503-338-7696 or 503-338-2408.

### **Small Business Management**

If you are a business owner/manager, the Small Business Management Program provides you with a variety of skills and tools that can lead you to greater business success. The program includes a practical once-a-month classroom session covering a variety of business topics and providing an opportunity to exchange ideas with other business owners. The program also includes a monthly visit to businesses by the SBM instructor to assist in applying the materials learned in class. The instructor/student relationship is completely confidential.

The course covers a variety of subjects, including financial control and management, supervision, sales and marketing, inventory control, quality control, accounting, customer relations, and computer applications. You will receive a certificate of completion at the conclusion of the three year program.

Additional information about this program can be obtained by contacting the Business Center, South County Campus, 503-338-2342.

### **Clatsop Economic Development Resources (CEDR)**

CEDR, a partnership between the Small Business Administration (SBA), the Oregon Economic and Community Development Department (OECDD), Columbia Pacific Economic Development District (ColPac) and Clatsop Community College, provides business counseling and training for new and existing businesses. The one-on-one business counseling is free and confidential. CEDR brings the power of state-wide network resources, including an electronic delivery of resources (eSBDC), and a focus on technical expertise to support companies' retention and expansion goals. Call 503-338-2402 to set up a confidential counseling session, or access other CEDR resources.

### **Lives In Transition**

The Lives in Transition (LIT) program is designed to assist individuals gain greater self-sufficiency, explore career/vocational options, and develop personal action plans. To successfully complete the program, students participate in two, three-credit classes: "Life Transitions" and "Coping With Stress And Depression." Classroom activities and discussions include:

- Improving self-esteem
- Promoting assertiveness and boundary-setting techniques
- Understanding the grief process
- Enhancing communication skills
- Learning and practicing stress management skills, and
- Developing educational, career or vocational goals.

A resource room is available to provide on-going support, guidance and camaraderie. The LIT program is free to participants and may include partial reimbursement for childcare and transportation expenses. For more information or to sign up for the mandatory, pre-class orientation, call 503-338-2377.

### **Counseling**

Confidential professional counseling, provided free of charge, is available to support students dealing with personal challenges that may affect their college performance. This may include help in managing stress, interpersonal conflicts, decision-making, personal crisis events, screening consultations for mental health and/or substance abuse problems, and other personal concerns. Resource information and referral is provided regarding support groups, self-help courses, and various community health and other support services. Counseling requests can be made through the Student Services Center front desk staff; or contact Margaret Frimoth at 503-338-2378, 503-338-2468 TTY, mfrimoth@clatsopcc.edu.

### **Disability Support Services**

The college is committed to providing equal opportunities for students with disabilities throughout the college community. Students with documented disabilities are entitled to reasonable accommodations under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Our philosophy is to maximize your independence and self-reliance, while making available a variety of support options, to assist you in achieving your educational and/or vocational objectives. To receive services you must submit documentation of your disabling condition(s) to the Disabilities Specialist. To initiate support services, please contact Disability Services at 503-338-2474, TTY 503-338-2468, criehl@clatsopcc.edu. Official documentation will be reviewed by the Disabilities Specialist prior to receiving accommodations. It is your responsibility to self identify and make the request for services within the first 2 weeks of classes.

# Services

---

Services may include:

- Campus orientation
- Registration assistance
- Academic advising and counseling
- Reasonable and appropriate classroom accommodations
- Test taking facilitation
- Tutorial support
- Student advocacy
- Resource and referral; [www.bookshare.org](http://www.bookshare.org), [www.naturalreader.com](http://www.naturalreader.com), recording for the blind and dyslexic: [www.learningally.org](http://www.learningally.org), etc.
- Special adaptive devices

## Veterans Educational Benefits

The Veterans School Certifying Officials (SCO) are located in the Student Services Center and provide assistance to students who are eligible for VA Educational Benefits. The SCO tracks programs, enrollment, grades and progress on each student to report to the VA. Initiating VA educational benefit checks generally take 3-5 weeks. Typically, students are paid monthly for the prior month's enrollment, while the VA pays tuition and fees directly to the college for some benefit chapters. While an application is being processed, students should be prepared to meet the costs of attendance. Tuition may be due before you receive your first VA payment. If you are unable to pay your tuition in full by the due date, you may set up a Deferred Payment Plan on or before the due date. If you cannot make any payments, late fees will be added to the cost of your tuition if you do not drop the courses by the specified date.

**Admissions:** Students receiving veterans' educational benefits must be officially admitted toward a certificate or degree program before the term they are requesting benefits. The VA will pay only for classes that advance students toward an approved degree or certificate program.

**Transfer of credit:** Students who enter as transfer students, or who have completed any college-level course work, are required to have all official transcripts submitted to the Admissions Office for evaluation. Students have until the end of their first term of enrollment to have submitted transcripts. The VA will not pay for the student to repeat any classes they have previously passed successfully. Transfer credit can be awarded for some military courses.

**Satisfactory Progress:** Students receiving VA Educational Benefits are required to follow Satisfactory Academic Progress to maintain benefits. This includes a cumulative Grade Point Average (GPA) of 2.00 and a completion rate of 66.67% at the end of each term. Students are notified at the end of each term in which they have not made satisfactory progress. Students should access the entire Satisfactory Academic Progress/Rules & Regulations under the Veterans Educational Benefits section on the college website.

## Food Service and Bookstore

Food Service is available in Columbia Hall until early afternoon when classes are in session and serves meals and snacks. The Bookstore is on the first floor of Columbia Hall and provides textbooks and other class materials. You can contact Food Service at 503-338-2446, and the Bookstore at 503-338-2338.

## Student Government Leadership Opportunities

The Associated Student Government (ASG) is a nonprofit student organization that coordinates student activities on campus and provides assistance and service to the student population. ASG officers hold office hours as their schedules permit.

Student government provides Clatsop Community College students with the opportunity to gain leadership skills and to help other students. Student government officers plan campus activities, develop the yearly budget, purchase equipment, and participate in various community service events. They also serve as members of some campus committees, providing advocacy for students in campus decision-making.

For more information on how you can participate in student government, stop by the ASG Office in room 109, Columbia Hall or call them at 503-338-2495. You may also contact the ASG Coordinator at 503-338-2371.

## Organizations and Activities

Out-of-class activities are as important for education as traditional course work. At Clatsop, there are recreation and social activities throughout the year. If you have a special interest, you are invited to form a club and seek ASG approval as a recognized student organization.

## Education For Life (Continuing Education)

Clatsop Community College's Education For Life program offers a variety of noncredit classes that are fun, informative and interesting. Each quarter, those in the community who want to continue their life-long learning can register for classes that are of interest to them. Education For Life classes are taught by experts who reside in our community and want to share their knowledge with you. No tests or exams!...just lots of information that provide self improvement, personal enrichment and invigorates your desire for continued learning. Sign up for a class today— it's never too late to begin learning about a subject or to just keep learning in life! Call 503-338-2408 for additional information.

## ENCORE

Clatsop Community College sponsors ENCORE (Exploring New Concepts of Retirement Education), a learning in retirement organization. ENCORE is a member-run organization dedicated

# Services • Information

---

to providing quality educational opportunities and adventures for older adults, meeting the intellectual and cultural needs of its members. ENCORE offers a broad spectrum of programs and promotes an environment that fosters personal growth, vitality, and celebrates lifelong learning.

ENCORE members pay annual dues to the organization and may attend free any or all of the ENCORE scheduled classes they are interested in (except where special fees may apply).

Call 503-338-2408 for additional information.

## **Adult Education and Family Literacy**

The purpose of Adult Education and Family Literacy programs are to help you improve your basic reading, writing and mathematics skills. Instruction in basic skills enhances your opportunities for success in continued academic learning and in the workplace. Course offerings include basic skills classes, college preparation, GED, and English Language Learners (ELL). Career and workforce skills are integrated into the courses.

## **College Preparation Courses/Reading and Writing Improvement**

College preparation courses help you strengthen the reading, writing, and mathematics skills needed to prepare for college transfer classes, vocational programs and the workforce. After completing the COMPASS placement, your assigned advisor will direct you to the appropriate courses.

## **General Educational Development (GED)**

The GED program offers classes for you to prepare for the GED certificate tests. The GED is accepted as a substitute for a high school diploma by most employers, apprenticeship programs and colleges throughout the United States. In Oregon the certificate is awarded by the Oregon Department of Education.

If you are interested in obtaining your GED, call 503-338-2347. Day and evening classes are offered at various sites.

## **English Language Learners**

English Language Learner (ELL) classes are designed to help non-native speakers gain skills in reading, writing, and speaking. Strengthening English skills will increase opportunities for success in college courses and the workplace. Classes are offered in Astoria and at other community sites.

## **Literacy Program**

Tutors are available to assist basic skills and ELL students with reading, writing, math, citizenship and workforce skills. Free tutor training is offered throughout the year. If you are interested in volunteering for the Volunteer Literacy Tutor program or want to refer someone for tutoring, phone 503-338-2557.

## **Volunteer Literacy Tutoring Program**

Students and community members interested in assisting those learning to read and to speak English can participate in the volunteer literacy tutor program. Trainings are offered throughout the year and focus on both adult literacy and English Language Learning. Trained volunteers are matched with eager learners by the Volunteer Literacy Coordinator. For more information, call 503-338-2557.

## **Students' Rights, Responsibilities and Conduct**

The College has established policies and procedures governing student rights and responsibilities, and outlining the rules for student conduct, procedures for disciplining students, and the process for filing student complaints. These policies and procedures are published in the Student Handbook and on the College's website at [www.clatsopcc.edu](http://www.clatsopcc.edu). Copies of the handbook are available in the Student Services Center, or call 503-338-2371 to request a copy. Any changes to student policies and procedures made after the handbook has been published are also available in the Student Services Center or on the College website.

## **Discrimination Complaint Procedure (Including Sexual Harassment Discrimination)**

These procedures shall be used for complaints related to the College's discrimination and harassment policies. The process shall not be used for contract grievances or personnel matters which do not involve alleged acts of discrimination or harassment.

In addition to filing a complaint with the College, a complainant may file with any of the state or Federal agencies with authority in monitoring compliance: Equal Employment Opportunity Commission, the Office of Civil Rights, the State Department of Education, the Bureau of Labor and Industry.

Orderly and Timely Process: the intent of the procedure described below is to provide an orderly and timely resolution of discrimination and harassment complaints, and to provide full opportunity for internal consideration of problems and potential remedies. Complaints must be submitted within one year of the date when the complainant knew of the alleged discrimination.

### **General Information:**

1. The following procedure is to be used by an applicant, employee, student, or potential student who alleges discriminatory actions by a college employee or student against the complainant in violation of the College's Non-discrimination Policy or Sexual Harassment Policy.
2. Confidentiality: The confidentiality of the parties involved in a complaint will be observed, provided it does not interfere with the institution's ability to investigate or take corrective action.

# Information

3. Retaliation: The institution is committed to protecting any person who, in good faith, reports sexual harassment or discrimination. Retaliation is a serious violation and shall be investigated independently of whether a charge or complaint of harassment or discrimination is substantiated.
4. Retention of Information: All records of complaints and the disposition of the complaints will be retained permanently by the AA Office.

## Procedural Steps

### Step 1. Informal Resolution:

If complaints are not resolved informally between the parties or through informal discussions between the Affirmative Action Officer and the person who has allegedly discriminated/harassed, the complainant is encouraged to contact the Affirmative Action Officer. The Affirmative Action Officer shall pursue an informal resolution. One of the goals of the informal resolution process is to encourage and foster settlements rather than contested hearings. The President will be notified of the complaint and its outcome. If an acceptable resolution is reached, the complaint will be considered resolved and the complainant may be asked to sign a written agreement as to the resolution.

### Step 2. Formal Complaint:

If the complainant is not satisfied with the results from the informal resolution (Step 1), a written complaint using the Clatsop Community College Complaint Form, will be filed with the Affirmative Action Officer within 15 working days of the conclusion of the informal resolution step. The written complaint shall contain specific details covering the incident and the desired remedy. Forms are available in the Offices of the Affirmative Action Officer, Student Services, Human Resources, Learning Resource Center, MERTS, and South County Center.

Copies of the complaint will be forwarded to the College President.

Upon receipt of the complaint, the AA Officer will:

1. Advise the complainant and alleged offender of the complaint and the procedure for resolving complaints.
2. Investigate the complaint including interviews of the parties involved and witnesses within 20 working days of receipt of the complaint.
3. Attempt to resolve the complaint between the parties within 20 working days of receipt of the complaint.
4. If the issue is resolved successfully, the complaint will be considered resolved and the complainant may be asked to sign a written agreement as to the resolution. The AA Officer will notify the College President and the alleged offender that the complaint has been resolved.
5. If the issue is not resolved to the satisfaction of the complainant, the complainant may request, in writing, a hearing before the College President.

### Step 3. Hearing:

The College President shall conduct an investigation and

hearing. The AA Officer will prepare a report of the investigation and activities related to the complaint, a copy of the written complaint, any written documentation collected during the Step 2 investigation, and submit this to the College President.

The AA Officer will schedule the hearing for the College President, permitting the complainant and alleged offender/s, or their representatives to present evidence or interpretation of incidents related to the alleged discrimination or sexual harassment. The hearing should be conducted within 10 working days of the request for the hearing.

The hearing will not be open to the public.

The President shall announce a decision within 10 working days after the investigation and hearing. If additional time is needed to conduct a more extensive investigation, additional time may be allowed. The President shall notify the alleged offender, the complainant, the appropriate supervisors, the Human Resource office, and the AA Officer in writing of the action or decision.

In the event that disciplinary action is warranted, the appropriate administrator or supervisor will follow normal personnel or student discipline procedures, under the direction of the AA Officer.

### Step 4: Appeals:

Complainants who are not satisfied with the President's decision may appeal the decision in writing to the Clatsop Community College Board of Directors within 15 working days of notification of the President's decision. Written requests for an appeal should be addressed to the Chairperson of the Clatsop Community College Board of Directors and state the basis of the complaint and the reasons or policies which justify further review of the decision. The respondent can request that the appeal hearing by the Board be in open session. The Board shall act on the appeal within a reasonable period of time, but no longer than 30 working days. The decision of the Board shall be final.

Complaints regarding personnel actions or student disciplinary action that result from the College President's decision must be pursued through College discipline procedures.

**Step 5: Follow-up:** It is essential to verify that whatever action was taken did stop the discrimination or harassment and will prevent it from recurring in the future. The AA Officer will contact the complainant by phone or mail within 60 calendar days to determine the effectiveness of the process and remedy.

## Student Consumer Information

Federal regulations (part 668.41 – Student Assistance General Provisions) require that certain information be provided to all enrolled students on an annual basis, and to all prospective students. Following is a list and brief description of the required disclosures and information on where you can obtain a detailed copy of each disclosure.

**Institutional Information:** The college is required to provide

you with general information regarding Clatsop Community College, including: the cost of attendance, academic programs, accrediting agencies, special services for students, appropriate campus contacts for all information, a description of the institution's refund policies, return of funds to Title IV programs (financial assistance), and the institution's procedures for officially withdrawing. The primary sources for this information are the catalog, Student Handbook, and the Clatsop Community College website at [www.clatsopcc.edu](http://www.clatsopcc.edu).

**Available Financial Assistance:** Information on available federal, state, and institutional financial need-based and non-need based assistance programs can be found by reviewing the Clatsop Community College Financial Aid website. The Financial Aid website includes descriptions of student assistance programs, application procedures and eligibility criteria, and the rights and responsibilities of students receiving financial assistance. The Financial Aid website may be viewed at [www.clatsopcc.edu](http://www.clatsopcc.edu). Scholarship information and applications may also be accessed on-line at [www.clatsopcc.edu](http://www.clatsopcc.edu). Several student computers are available in the Student Services Center for use in accessing this information. You may also pick up scholarship information at the Financial Aid Office.

**Graduation Rates:** This report provides information on the graduation rates of a cohort of full-time degree or certificate seeking students who graduated within 150% of normal time for graduation. This information is available in the Student Right-to-Know Report which can be picked up at the Student Services Center, or you may request a copy by phone at 503-338-2368 or view it on the college website at: [www.clatsopcc.edu](http://www.clatsopcc.edu).

**Family Education Rights and Privacy Act (FERPA):** also known as the Buckley Amendment, gives students the right to:

- Access their educational records
- Consent to release a record to a third party
- Challenge information in their records
- Be notified of their privacy rights.

Information on FERPA is available in the student hand-out entitled "Your Student Records." You may request a copy by phone at 503-338-2326 or view it on the college website at [www.clatsopcc.edu](http://www.clatsopcc.edu).

**Campus Safety Report:** The Campus Safety Report complies with the requirements of the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act (Clery Act). It explains how the College reports and handles crime and emergency situations on or near College property and provides statistics on reportable offenses. The full report is available at <http://www.clatsopcc.edu/about-ccc/student-consumer-information/safety-report>. We will provide a paper copy of the Campus Safety Report upon request.

This disclosure provides statistics on campus safety and crime for the three most recent calendar years, policies and procedures for reporting crimes, information regarding campus security provisions, and crime prevention programs on campus. The annual Campus Safety Report can be picked up at the Student Services Center, or you may request one by phone at 503-338-2326 or email [registrar@clatsopcc.edu](mailto:registrar@clatsopcc.edu).

## Disclosure Statement

OAR 581-41-460 authorizes Community College to ask you to provide your social security number. The number will be used by the college for reporting, research, and record keeping. Your number will also be provided by the college to the Oregon Community College Unified Reporting System (OCCURS), which is a group made up of all community colleges in Oregon, the State Department of Community Colleges and Workforce Development and the Oregon Community

College Association. OCCURS gathers information about students and programs to meet state and federal reporting requirements. It also helps colleges plan, research, and develop programs. This information helps the colleges to support the progress of students and their success in the workplace and other education programs.

OCCURS or the college may provide your social security number to the following agencies or match it with records from the following systems: State and private universities, colleges, and vocational schools, to find out how many community college students go on with their education and to find out whether community college courses are a good basis for further education; The Oregon Employment Department, which gathers information, including employment and earnings, to help state and local agencies plan education and training services to help Oregon citizens get the best jobs available; The Oregon Department of Education, to provide reports to local, state and federal governments. The information is used to learn about education, training, and job market trends for planning, research, and program improvement; The Oregon Department of Revenue and collection agencies only for purposes of processing debts and only if credit is extended to you by the college; The American College Testing Service, if you take the COMPASS Placement test, for educational research purposes.

State and federal law protects the privacy of your records. Your number will be used only for the purposes listed above.

## College Policy On Drug & Alcohol Use

The Student Code of Conduct for Clatsop Community College prohibits the use, possession, or distribution of alcoholic beverages on College property, except as expressly permitted by the law and college regulations. It is a violation of the Code of Conduct to be under the influence of alcoholic beverages while on College property. The College also prohibits the possession and consumption of alcoholic beverages by minors at any College or College affiliated functions and the serving of alcoholic beverages at College and College affiliated functions where a significant number of those in attendance are minors.

In addition, the Student Code of Conduct prohibits the use, possession, or distribution of any controlled substances, as defined by ORS 475 [as now law or hereinafter amended] except when use or possession is lawfully prescribed. It is also a violation of the Code of Conduct to be under the influence of controlled substances while on College property.

Sanctions which may be imposed for violations of College policy include: Expulsion (removal of privilege to attend CCC); suspension for a definite period of time; disciplinary probation with specific terms for continued enrollment; and suspension or expulsion for violation of those terms; or a written reprimand. Parents of students under age 18 will be notified of any violations of the College's alcohol or drug policy.

### THERE IS HELP

For substance abuse problems or addiction, a professional counselor in Student Services can advise you about actions to take for support and further help from community self-help groups, treatment programs and private counselors. This service is provided to students free of charge. You may contact the Student Services Center or call Counseling Services at 503-338-2378 for an appointment.



## ASSOCIATE OF ARTS OREGON TRANSFER (AAOT)

**Role Descriptions:** The Oregon Transfer Program is designed for students who will continue with upper division studies in Oregon colleges and universities, and who will function as effective citizens in a democratic society and as members of a local and global community.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Engage in civic opportunities with a sense of personal empowerment.
2. Use research skills to access information from multiple sources; use critical thinking skills to evaluate and synthesize information in the form of conclusions, ideas, and opinions.
3. Express ideas clearly and creatively in diverse ways through art, speech, writing, technologies, and mathematics.
4. Draw on knowledge of the arts and sciences to compete effectively in upper division coursework.
5. Use effective life skills to improve and maintain mental and physical wellbeing.
6. Apply learning skills to advance in academic, career, and personal development.
7. Enter and compete effectively in the work force.
8. Recognize, understand, and respond to the wonders and challenges of the natural environment through participation in environmental literacy efforts.
9. Recognize one's role in world community issues with a respect for diverse cultures and differing world views while embracing a sense of pride in one's own regional values and historical heritage.

You have the opportunity to broaden your creative and critical knowledge through an Arts and Sciences program. You might enroll in the lower division program to explore several fields of study to clarify your educational and professional goals. Or you might seek a broad general education as a foundation in preparation for specialization during your junior and senior years at a four-year institution.

Many students attend Clatsop Community College for one or more terms and then transfer to a four-year college. The Associate of Arts, Oregon Transfer Degree allows you to complete lower division requirements at Clatsop Community College. If you complete this degree and are accepted at Oregon public universities, you are admitted as having completed all the lower division General Education requirements for a baccalaureate degree; however, some departments within State System institutions may require additional courses for admittance with junior standing.

You should confer with your advisor at Clatsop and with the institution to which you expect to transfer concerning the requirements of their baccalaureate major. Additional classes which are not on following lists may transfer as electives. The receiving school makes the decision concerning which classes it will accept for credit, which apply to its major and degree requirements, which classes transfer as electives, and which classes it will not accept. In any case, it is your responsibility to confer with the school to which you intend to transfer.

## General Requirements

- Writing** Students taking writing classes of three credits each must complete WR 121, 122, and either WR 123 or 227.
- Mathematics** Students must complete one course in college-level mathematics, for which MTH 095 Intermediate Algebra is a prerequisite. This course cannot be used to meet the Math/Science requirement.
- Oral Communication** Students must complete one course in the fundamentals of speech or communication. This course cannot be used to meet the Arts & Letters discipline are requirement.
- Health/Wellness/Fitness** Students must complete one or more courses totaling three credits.

## Discipline Requirements

**Arts & Letters:** Students must complete three courses chosen from two or more disciplines. The second year of a foreign language, but not the first year, may be included among courses that count toward the Arts and Letters requirement.

ARCH 215 .....History Pacific NW Architecture ..... 3	◆ENG 109 .....World Lit.-Africa/Asia/Latin Am..... 3
ART 115,116,117 ...Basic Design I, II, III ..... 3 ea	ENG 110 .....Introduction to Film Studies ..... 3
ART 204,205,206...History of Western Art I, II, III ..... 3 ea	◆ENG 180 .....Gothic Literature..... 3
ASL 201 .....Amer Sign Language-Conv Skills ..... 3	ENG 201,202,203 ..Shakespeare I, II, III..... 3 ea
ENG 104 .....Intro to Literature-Fiction ..... 3	◆ENG 204 .....English Literature-Medieval ..... 3
ENG 105 .....Intro to Literature-Drama..... 3	◆ENG 205 .....English Literature-Renaissance ..... 3
ENG 106 .....Intro to Literature-Poetry ..... 3	◆ENG 206 .....English Literature-Victorian/Modern.... 3
◆ENG 107 .....World Lit.-The Ancient World ..... 3	◆ENG 220 .....Non-European Minority Literature ..... 3
◆ENG 108 .....World Lit.-Medieval/Renaissance..... 3	

*continued on the next page*

**Arts & Letters, continued**

◆ENG 221 .....	Intro to Children's Literature.....	3	◆SP 112.....	Persuasive Speech .....	3
ENG 253,254,255 ...	Survey of American Literature.....	3 ea	◆SP 115.....	Intro. to Intercultural Communication	3
◆ENG 263 .....	Autism in Literature .....	3	◆SP 130 .....	Business & Professional Speaking.....	3
◆FR 201,202,203....	Second Year French.....	4 ea	◆SP 219 .....	Small Group Discussion.....	3
◆HUM 101,102,103	Introduction to Humanities .....	3 ea	◆SPAN 201,202,203	Second Year Spanish .....	4 ea
MUS 105 .....	Music Appreciation .....	3	WR 227 .....	Technical Report Writing .....	3
PHL 101 .....	Philosophical Problems .....	3	WR 240 .....	Creative Writing-Nonfiction.....	3
PHL 102 .....	Ethics.....	3	WR 242 .....	Creative Writing-Poetry .....	3
PHL 103 .....	Critical Reasoning .....	3	WR 249 .....	Writing Children's Books .....	3
R 201,202,203 .....	Great Religions of the World.....	3 ea	WR 270 .....	Literary Publications .....	3
◆SP 111 .....	Fundamentals of Public Speaking.....	3			

**Social Science:** Students must complete four courses chosen from two or more disciplines.

ANT 101 .....	Intro to Biological Anthropology .....	3	HST 218 .....	Native American History .....	3
◆ANT 102.....	Intro to Archaeology & Prehistory .....	3	HST 245 .....	Lewis/Clark Course of Discovery.....	3
◆ANT 103.....	Intro to Cultural Anthropology .....	3	HST 277 .....	History of the Oregon Trail.....	3
CJ 107 .....	Criminal Justice Workshop.....	3	◆PHL 208 .....	Political Philosophy .....	3
CJ 110 .....	Introduction to Law Enforcement.....	3	PS 201, 202 .....	American Government.....	3 ea
CJ 111 .....	Introduction to Criminal Justice .....	3	PS 203 .....	State and Local Government.....	3
CJ 114 .....	Gender, Race, Class & Crime.....	3	PS 205 .....	International Politics .....	3
CJ 120 .....	Introduction to the Judicial Process.....	3	PSY 101 .....	Psychology of Human Relations.....	3
CJ 138 .....	Understanding Terrorism .....	3	PSY 201,202,203	General Psychology .....	3 ea
CJ 243 .....	Alcohol & Other Dangerous Drugs.....	3	PSY 215 .....	Intro. to Developmental Psychology .....	3
EC 201,202 .....	Principles of Economics .....	4 ea	◆SOC 204 .....	General Sociology: Introduction .....	3
◆ECE 262 .....	Teaching in Anti-Bias Classroom.....	3	◆SOC 205.....	General Sociology: Social Issues.....	3
GEO 100 .....	Physical Geography .....	3	SOC 221 .....	Juvenile Delinquency.....	3
◆GEO 110.....	Cultural and Human Geography.....	3	◆SOC 225.....	General Sociology: Global Issues.....	3
GEO 120 .....	World & Regional Geography .....	3	◆WS 201.....	Intro to Women's Studies.....	3
GEO 130 .....	Economic & Resource Geography .....	3	◆WS 210.....	Cultural Perspective of Women of Color	3
HFS 226 .....	Growing Years .....	3	◆WS 221.....	Women, Difference & Discrimination....	3
◆HST 101,102,103 ..	History of Western Civilization .....	3 ea	◆WS 230.....	Women and Social Action.....	3
◆HST 104,105,106 ..	World History I, II, III .....	4 ea			
◆HST 201,202,203 ..	History of the United States .....	3 ea			

**Science/Mathematics:** Students must complete four courses from at least two disciplines, including at least three laboratory courses in biological and/or physical science.

*BI 101,102,103....	General Biology .....	4 ea	*GS 112.....	Chemistry & Cell Biology .....	5
*BI 112.....	Cell Bio./Allied Health Occupations .....	4	GS 161 .....	Field Biology of Oregon .....	3
*BI 143.....	Marine Biology .....	4	MTH 103.....	Applied College Algebra.....	4
*BI 211,212,213....	Principles of Biology I, II, III .....	4 ea	MTH 105.....	Intro. to Contemporary Mathematics .....	4
BI 222.....	Human Genetics .....	3	MTH 111 .....	College Algebra.....	4
*BI 231,232,233....	Human Anat. and Physiology I, II, III .....	4 ea	MTH 112.....	Elementary Functions (Trigonometry)..	4
*BI 234.....	Introductory Microbiology .....	4	MTH 116.....	Pre-Calculus .....	4
*BOT 101.....	Botany .....	4	MTH 211,212,213 ..	Fundamentals of Elementary	
*CH 104,105 .....	Introductory Chemistry I, II.....	4 ea		Mathematics I,II,III .....	3 ea
*CH 106 .....	Introductory Chemistry-Biochemistry .....	4	MTH 243,244.....	Intro. to Probability and Statistics.....	4 ea
*CH 120 .....	Chemistry in Art.....	4	MTH 251.....	Calculus I .....	5
*CH 221,222,22 .....	General Chemistry .....	5 ea	MTH 252,253.....	Calculus II,III .....	4 ea
*ES 160.....	Techniques in Environmental		*PH 201,202,203 ...	General Physics .....	5 ea
	Information Analysis.....	4	*PH 211,212,213....	General Physics with Calculus .....	5 ea
*ES 202.....	Applied Environmental Studies:				
	Prep for Problem Solving.....	4			
*GS 104 .....	Physical Science-Physics .....	4			
*GS 106 .....	Physical Science-Geology.....	4			
*GS 109 .....	Physical Science-Meteorology.....	4			

\*Courses that meet the lab science requirements of the AAOT

**Cultural Literacy:** Students must select one discipline studies course that is designated as meeting the cultural literacy outcome and criteria. (Courses meeting this criteria in each discipline area above have a "◆" notation.)

## **Electives**

Students may complete any college-level course that would bring total credits to 90 quarter hours including up to 12 credits of college designated Career and Technical Education courses numbered 100 or higher.

## **Institutional Requirements**

Students must complete a total of 90 quarter credits in order to be awarded the AAOT.

All courses should be aligned with the student's intended program of study and the degree requirement of the baccalaureate institution to which the student plans to transfer. Students are encouraged to work with an advisor in the selection of courses.

All Foundational Requirements and Discipline Studies courses must be a minimum of 3 credits, except for Health/Wellness/Fitness courses, which may be any number of credits.

All Elective courses may be any number of credits. All courses must be passed with a grade of "C" or better. Students must have a minimum cumulative GPA of 2.0 at the time the AAOT is awarded.

# Associate of Science, Oregon Transfer Degree in Business (ASOT-Bus)

## ASSOCIATE OF SCIENCE OREGON TRANSFER PROGRAM IN BUSINESS

**Role Descriptions:** The Oregon Transfer Program in Business is designed for the person intending to transfer to upper division work in Business at a four-year Oregon University.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Work within the ethical, legal, and regulatory parameters for business enterprises.
2. Calculate, compile, and analyze financial records to make prudent business decisions.
3. Draw on knowledge of the arts and sciences to address business-related issues.
4. Use an understanding of economic policy to reflect on personal, local, and world issues.
5. Express ideas clearly and creatively in diverse ways through art, speech, writing, technologies, and mathematics.
6. Use research skills to access information from multiple sources; use critical thinking skills to evaluate and synthesize information in the form of conclusions, ideas, and opinions.
7. Engage in civic opportunities with a sense of personal empowerment.
8. Apply identified learning skills to advance in academic, career, and personal development across the lifespan.
9. Show respect for diverse cultures and differing world views while embracing a sense of pride in one's own regional values and heritage.

You have the opportunity to broaden your creative and critical knowledge through an Arts and Sciences program. You might enroll in the lower division program to explore several fields of study to clarify your educational and professional goals. Or you might seek a broad general education as a foundation in preparation for specialization during your junior and senior years at a four-year institution.

Many students attend Clatsop Community College for one or more terms and then transfer to a four-year college. The Associate of Science, Oregon Transfer Degree in Business provides you an opportunity to complete the first two-years of a four-year business degree at Clatsop Community College. This degree allows you to complete all of the lower division general education requirements of Oregon University System institutions. Upon admission to the Oregon University System institution, you will have junior year standing for purposes of registration only. It may be possible that there may be some lower division course requirements that must be satisfied for the business program at the Oregon University System institution.

You should work closely with your academic advisor at Clatsop. It is very important that you attempt to identify the Oregon University System institution to which you plan to transfer for your baccalaureate degree as early as possible. As you will see on the following pages, each university has its unique business program prerequisite requirements, including, in some cases, grade point average. You should also confer with the university to which you intend to transfer to ensure that you are satisfying all of their requirements for admission into their business program.

## Foundational Requirements

**Writing:** WR 121 English Composition-Exposition and WR 122 English Composition-Argument and WR 227 Technical Report Writing.

**Oral Communication:**

One course in the fundamentals of speech or a communication course. This course cannot be used to meet the Arts & Letters requirement.

**Mathematics:** A minimum of three courses for which MTH 95 Intermediate Algebra is a prerequisite, including one course in statistics (MTH 243 or MTH 244).

**Computer Applications:**

Proficiency in word-processing, spreadsheet, database, and presentation software as demonstrated by successful completion of either MIC 145 Intro to Integrated Software or CS 131 Intro to Computer Information Systems.

## Discipline Studies

**Arts & Letters:** Three courses, chosen from at least two disciplines. (CHOOSE FROM THE FOLLOWING LIST)

ARCH 215 .....	History Pacific NW Architecture.....	3	◆ENG 263 .....	Autism in Literature .....	3
ART 115,116,117 ...	Basic Design I, II, III.....	3 ea	◆FR 201,202,203...	Second Year French.....	4 ea
ART 204,205,206 ...	History of Western Art I, II, III .....	3 ea	◆HUM 101,102,103	Introduction to Humanities .....	3 ea
ASL 201 .....	Amer Sign Language-Conv Skills .....	3	MUS 105 .....	Music Appreciation .....	3
ENG 104 .....	Intro to Literature-Fiction .....	3	PHL 101 .....	Philosophical Problems.....	3
ENG 105 .....	Intro to Literature-Drama.....	3	PHL 102 .....	Ethics.....	3
ENG 106 .....	Intro to Literature-Poetry .....	3	PHL 103 .....	Critical Reasoning .....	3
◆ENG 107 .....	World Lit.-The Ancient World .....	3	R 201,202,203 .....	Great Religions of the World.....	3 ea
◆ENG 108 .....	World Lit.-Medieval/Renaissance.....	3	SP 111 .....	Fundamentals of Public Speaking.....	3
◆ENG 109 .....	World Lit.-Africa/Asia/Latin Am.....	3	◆SP 112.....	Persuasive Speech.....	3
ENG 110 .....	Introduction to Film Studies.....	3	◆SP 115.....	Intro. to Intercultural Communication ..	3
◆ENG 180 .....	Gothic Literature .....	3	◆SP 130 .....	Business & Professional Speaking.....	3
ENG 201,202,203 ...	Shakespeare I, II, III.....	3 ea	◆SP 219 .....	Small Group Discussion.....	3
◆ENG 204 .....	English Literature:Medieval.....	3	SPAN 201,202,203..	Second Year Spanish .....	4 ea
◆ENG 205 .....	English Literature:Renaissance.....	3	WR 240 .....	Creative Writing-Nonfiction.....	3
◆ENG 206 .....	English Literature:Victorian/Modern....	3	WR 242 .....	Creative Writing-Poetry .....	3
◆ENG 220 .....	Non European Minority Literature.....	3	WR 249 .....	Writing Children's Books.....	3
◆ENG 221 .....	Intro to Children's Literature .....	3	WR 270 .....	Literary Publications .....	3
ENG 253,254,255 ...	Survey of American Literature.....	3 ea			

**Social Science:** Four courses chosen from two or more disciplines, with a minimum of two courses in "principles of economics" (to include microeconomics and macroeconomics\*) at the 200 level. The courses in economics must be completed with a grade of "C" or better.

(CHOOSE FROM THE FOLLOWING LIST)

ANT 101 .....	Intro: Biological Anthropology.....	3	◆HST 201,202,203	History of the United States .....	3 ea
◆ANT 102.....	Intro: Archaeology and Prehistory .....	3	HST 218 .....	Native American History .....	3
◆ANT 103.....	Intro: Cultural Anthropology .....	3	HST 245 .....	Lewis/Clark Course of Discovery.....	3
CJ 107 .....	Criminal Justice Workshop .....	3	HST 277 .....	History of the Oregon Trail.....	3
CJ 110 .....	Introduction to Law Enforcement.....	3	◆PHL208 .....	Political Philosophy .....	3
CJ 111 .....	Introduction to Criminal Justice.....	3	PS 201, 202 .....	American Government.....	3 ea
CJ 114 .....	Gender, Race, Class & Crime .....	3	PS 203 .....	State and Local Government.....	3
CJ 120 .....	Introduction to the Judicial Process .....	3	PS 205 .....	International Politics .....	3
CJ 138 .....	Understanding Terrorism .....	3	PSY 101 .....	Psychology of Human Relations.....	3
CJ 243 .....	Alcohol & Other Dangerous Drugs .....	3	PSY 201,202,203 ...	General Psychology .....	3 ea
*EC 201,202 .....	<b>Principles of Economics.....</b>	<b>4 ea</b>	PSY 215 .....	Intro. to Developmental Psychology ....	3
◆ECE 262 .....	Teaching in Anti-Bias Classroom .....	3	◆SOC 204 .....	General Sociology: Introduction .....	3
GEO 100 .....	Physical Geography .....	3	◆SOC 205.....	General Sociology: Social Issues.....	3
GEO 110 .....	Cultural and Human Geography .....	3	SOC 221 .....	Juvenile Delinquency .....	3
GEO 120 .....	World & Regional Geography .....	3	◆SOC 225 .....	General Sociology: Global Issues.....	3
GEO 130 .....	Economic & Resource Geography.....	3	◆WS 201.....	Introduction to Women's Studies.....	3
HFS 226 .....	Growing Years.....	3	◆WS 210.....	Cultural Perspective/Women of Color ..	3
◆HST 101,102,103	History of Western Civilization .....	3 ea	◆WS 221.....	Women, Difference & Discrimination ..	3
◆HST 104,105,106	World History I, II, III.....	4 ea	◆WS 230.....	Women and Social Action.....	3

**Science:** Four courses from at least two disciplines including at least three laboratory courses in biological and/or physical science.

(CHOOSE FROM THE FOLLOWING LIST)

*BI 101,102,103.....	General Biology.....	4 ea	*GS 109 .....	Physical Science-Meteorology .....	4
*BI 112.....	Cell Biology/Allied Health Occupations4		*GS 112.....	Chemistry & Cell Biology .....	5
*BI 143.....	Marine Biology.....	4	GS 161 .....	Field Biology of Oregon.....	3
*BI 211,212,213.....	Principles of Biology I, II, III.....	4 ea	MTH 103.....	Applied College Algebra.....	4
BI 222.....	Human Genetics .....	3	MTH 105.....	Intro. to Contemporary Mathematics ...	4
*BI 231,232,233.....	Human Anat. and Physiology I, II, III ..	4 ea	MTH 111 .....	College Algebra.....	4
*BI 234.....	Introductory Microbiology .....	4	MTH 112.....	Elementary Functions (Trigonometry) ..	4
*BOT 101.....	Botany.....	4	MTH 116.....	Pre-Calculus .....	4
*CH 104,105 .....	Introductory Chemistry I, II .....	4 ea	MTH 211,212,213..	Fundamentals of Elementary	
*CH 106.....	Introductory Chemistry-Biochemistry... 4		Mathematics I,II,III.....	3 ea	
*CH 120 .....	Chemistry in Art .....	4	MTH 243,244.....	Intro. to Probability and Statistics .....	4 ea
*CH 221,222,223 ..	General Chemistry.....	5 ea	MTH 251 .....	Calculus I.....	5
*ES 160.....	Techniques in Environmental		MTH 252,253.....	Calculus II,III .....	4 ea
Information Analysis.....	4		*PH 201,202,203 ...	General Physics .....	5 ea
*ES 202.....	Applied Environmental Studies:		*PH 211,212,213....	General Physics with Calculus .....	5 ea
Prep for Problem Solving.....	4				
*GS 104 .....	Physical Science-Physics.....	4			
*GS 106 .....	Physical Science-Geology .....	4			

\*courses that meet the lab science requirements of the ASOT-Bus

◆ courses that meet the cultural literacy requirement of the ASOT-Bus

## Cultural Literacy

Students must select one discipline studies course that is designated as meeting the cultural literacy outcome and criteria. (Courses meeting this criteria in each discipline area have a “◆” notation.)

## Business Specific Requirements

Each course in this section must be completed with a grade of “C” or better:

- BA 101 Introduction to Business (4)
- BA 211, 212, 213 Principles of Accounting (12)
- BA 226 Business Law I (4) (May only be offered summer term)

### Elective and/or University-Specific Prerequisites (8-14 credits)

Depends on choice of transfer institution – see “University-Specific Prerequisites and Recommendations.” Please Note: This list of prerequisites and recommendations is subject to change without notice. At time of admission, consult university catalog for binding course requirements.

### Limitations on electives:

Electives must be courses numbered 100 or higher.

Professional/Technical courses - A total of 12 credits of courses numbered 100 or higher.

Courses that are developmental in nature, designed to prepare students for college transfer courses, are not applicable to this degree.

Physical Education - A maximum of six hours.

Individual Music Lessons (MUP) - A maximum of 12 credits on a major instrument and six credits on a secondary instrument may be applied to an associate degree.

Cooperative Work Experience - no more than 18 credits of combined worksite and seminar courses.

## Institutional Requirements

Complete a minimum of 90 credits of approved lower division collegiate courses.

All courses must be passed with a grade of "C-" or better. Students must have a minimum cumulative GPA of 2.0 at the time the ASOT-Business is awarded.

Have earned a "C" grade or better on all coursework transferred from other institutions that is to be included in a Clatsop Community College degree or certificate.

Complete at least 24 credits at Clatsop Community College.

## Foreign Language

Students, who have graduated from high school or completed a high school equivalency program in 1997 or after, must meet one of the following requirements for admission to an Oregon University System institution: either,

- 1) two years of the same high school level language, or
- 2) two terms of college level language with a grade of “C” or better (may be first year language; ASL [American Sign Language] classes also qualify).

## University-Specific Prerequisites\* and Recommendations

\*Subject to change without notice. At time of admission, consult university catalog for binding course requirements.

Institution	Prerequisites	Recommendations
Eastern Oregon University	WR 227 Technical Report Writing. The Business Law course for the ASOT-Bus is required.	
Oregon Institute of Technology	The Business Law course for the ASOT-Bus is required.	PSY 201 (General Psychology). BA 206 (Management Fundamentals, equivalent to BUS 215 at OIT). WR 227 (Technical Writing).
Oregon State University	BA 271 Information Technology in Business. BA 275 Business Quantitative Methods MTH 241 Calculus for Biological/Management/Social Sciences MTH 245 Math for Biological/Management/Social Sciences. The Business Law course for the ASOT-Bus is required.	
Portland State University	CS 106 Computing Fundamentals II. BA 205 Business Communications Using Technology. STAT 244 Introduction to Probability and Statistics II. GPA: 2.75 overall and 2.75 in pre-business core.	
Southern Oregon University	BA 271 or BA 282 Applied Business Statistics. GPA: 2.0 overall and 2.5 in all business courses. Students must apply for admission to the Business School/Program.	
University of Oregon	DCS 199 Special Studies: Business Applications Software. MTH 241, MTH 242 Calculus for Business and Social Science I, II. Multicultural requirement. GPA: 2.75 overall and 2.75 in pre-business core. Students must apply for admission to the Business School/Program.	
Western Oregon University	The Business Law course for the ASOT is required.	

# Associate of General Studies (AGS)

## ASSOCIATE OF GENERAL STUDIES (AGS)

**Role Descriptions:** The General Studies Program is designed to meet the needs of students wanting to focus their studies in an area of personal choice across multiple disciplines.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Read and critically interpret text (written, visual, digital); process content and context to construct meaning.
2. Communicate clearly and effectively through verbal, written, visual, and quantitative expressions.
3. Engage in creative inquiry and expression.
4. Solve problems using science, math, and technology.
5. Draw from multiple disciplines in order to understand the human condition.
6. Contribute as a member of the local community with a cultural and historical understanding of the northwest region in a global context.
7. Bring an understanding of the value of diversity to the community, the workplace, and the home; learn from different cultures, belief systems, and life styles.
8. Investigate, interpret, and communicate ideas about both natural and cultural landscapes.
9. Develop habits and skills that lead to the accomplishment of goals.
10. Seek out and engage in lifelong learning opportunities that broaden perspective, deepen understanding, and increase personal fulfillment.

The Associate of General Studies (AGS) degree provides students flexibility in using a variety of college-level courses (generally 100-level or above) to design a two-year degree program in broad interdisciplinary areas. These courses can come from general education, academic, or collegiate-level professional-technical courses found in this catalog to the meet Clatsop Community College's associate degree requirements.

The AGS is tailored to the student's needs and interests while maintaining high general education standards. Students will need to work closely with an academic advisor at Clatsop in designing their individual degree plan of study. At least 24 of the credits earned for the AGS must be taken at Clatsop Community College.

Please Note: students planning to transfer to a public four-year institution within Oregon should complete the AAOT degree (found on page 23), which is articulated statewide with the Oregon University System four-year colleges and universities.

Complete 36 credits or more from a cluster of related courses the student and his/her advisor identify. Student should identify the cluster of courses as soon as possible after enrollment, but no later than the term prior to the term in which he/she plans to graduate.

### Complete the following General Education Requirements:

**Writing:** Six credits (two classes) with a "C" or better in each class from the following:

- a. WR 121 English Composition-Exposition  
and
- b. Three credits from the following: WR 122 English Composition-Argument, WR 123 English Composition - Research Writing; WR 227 Technical Report Writing; BA 214 Business Communication.

**Mathematics:** One course numbered 100 or higher, with a "C" or better.

**Humanities and/ or Social Sciences:** Six credits of Humanities and/or Social Science courses from the Arts and Letters and Social Science lists on pages 23 and 24.

### Institutional Requirements

Student must complete a minimum of 90 credits of coursework to include alpha-numeric courses 100-299, and a maximum of 21 credits of courses numbered 9.000-9.999 to be taken at Clatsop Community College.

Earn a grade point average of 2.00 or above for all Clatsop Community College coursework.

Have earned a "C" grade or better on all coursework transferred from other accredited colleges and universities that is to be included in a Clatsop Community College degree or certificate.

Apply no more than a maximum of 24 credits of pass grades toward an Associate Degree.

Complete at least 24 credits at Clatsop Community College.



*See pages 32-66 for specific Applied Science programs and requirements.*

Applied Science programs provide the skills and work experience you'll need to qualify for employment. With the help of a local industry advisory committee, each program is carefully planned to meet the needs of the current job market. Instruction is provided by trained, experienced professionals, and classes are conducted in an industry-like work setting. The Cooperative Work Experience program offers credit for on-the-job experience with local employers in the field of your choice.

Applied Science programs include general education courses to assure that you have a basic understanding of writing, mathematics, human relations, and social sciences and/or humanities. While courses are not specifically intended for transfer to a four-year college or university, certain courses are currently accepted for transfer credit at specific institutions. In most cases, Professional/Technical courses can be transferred to other community colleges which offer similar programs. If you are planning to transfer, consult with appropriate representatives of the school you are planning to attend and with your Clatsop Community college advisor.

We offer one-year, two-year, or specialized training programs depending on the type and amount of preparation required for entry-level employment or professional renewal. Several options are available in many programs. Individuals holding state certifications in programs such as Fire Science and Emergency Medical Technician may be able to get credit based on their previous training. See a counselor or your advisor as you begin planning a specific program. Specific degree and certification requirements are listed below.

## **General Requirements**

**Writing:** **Six credits** (two classes) with a "C" or better in each class from the following:  
a. WR 121 English Composition-Exposition *and*  
b. Either WR 122 English Composition-Argument; WR 123 English Composition-Research Writing; WR 227 Technical Report Writing; BA 214 Business Communication; or a course specified by the specific Applied Science program.

**Mathematics:** **Four credits**, with a "C", "P" or better, in MTH 65 Mathematics for the Applied Sciences or MTH 95 Intermediate Algebra or a higher numbered math course.

**Humanities and/  
or Social Sciences:** **Six credits** of Humanities and/or Social Science courses from the Arts and Letters and Social Science lists on pages 23 and 24.

**Computer:** **One credit** or more of computer-related courses as specified in the specific Applied Science program.

**Human Relations:** As specified by the specific Applied Science program.

## **Program Courses**

**Required Courses:** As prescribed in the specific Applied Science program.

**Technical electives:** Technical electives provide student choice within an approved program. The number of technical option credits available is specified by the individual Applied Science programs.

**Electives:** The number of elective credits is specified by the specific Applied Science program. Students have the opportunity to choose these courses numbered 100 - 299.

## **Institutional Requirements**

- Complete a minimum of 90 credits of approved coursework which includes alpha-numeric courses 100-299, and a maximum of 21 credits of courses numbered 9.000-9.999 to be taken at Clatsop Community College.
- Earn a grade point average of 2.00 or above for all Clatsop Community College coursework.
- Have earned a "C" grade or better on all coursework transferred from other accredited colleges and universities that is to be included in a Clatsop Community College degree or certificate.
- Apply no more than a maximum of 24 credits of pass grades toward an Associate Degree.
- Complete at least 24 credits at Clatsop Community College.

## LEARNING OUTCOMES: GENERAL APPRENTICESHIP, ASSOCIATE OF APPLIED SCIENCE DEGREES

- Construction Trades, AAS Degree
- Electrician Apprenticeship Technologies, AAS Degree
- Industrial Mechanics & Maintenance Technology Apprenticeship, AAS Degree

**Role Descriptions:** These apprentice programs are designed for the person intending to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles.

**Intended Learning Outcomes:** In addition to apprentice and related learning courses, the learning experiences which complete this degree program are designed to assist the student in demonstrating the following outcomes:

1. Apply critical thinking skills to investigate, interpret, and communicate issues involving the trade, the community, and the home.
2. Coordinate projects and supervise others.
3. Lead a team unit in a direction that aligns with stated vision, mission, and values.
4. Work within the legal, regulatory, and code parameters of the trade/community.
5. Work to establish and promote a collaborative work environment where all voices are heard and valued as they contribute to shared goals.
6. Seek out and engage in learning opportunities that broaden perspective, deepen understanding, and increase personal fulfillment throughout life.
7. Use verbal, non-verbal, and written communication skills effectively.

## CONSTRUCTION TRADES, GENERAL APPRENTICESHIP ASSOCIATE OF APPLIED SCIENCE DEGREE

### Job Description:

This associate of applied science degree program is **designed for a person currently in or who has completed a Bureau of Labor and Industries (BOLI) approved construction trades apprenticeship** and who intends to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles.

### Employment Opportunities:

The labor market outlook for all construction trades in Oregon is projected to be strong and steady, with seasonal variations, through 2014, with growth rates from 17% to 29%. Job growth among first-line supervisors/managers of construction trades also can expect strong career opportunities, with Oregon growth rates of 15% through 2016, and with projected growth of 21.4% in Clatsop, Columbia, and Tillamook counties.

### Potential Earnings:

The average Oregon entry wage for all construction workers is, on average, \$11.15. For first line supervisors, the entry wage is \$18.18, and the median wage is \$28.16. *See course list on next page.*

## ELECTRICIAN APPRENTICESHIP TECHNOLOGIES ASSOCIATE OF APPLIED SCIENCE DEGREE

### Job Description:

This associate of applied science degree program is **designed for a person currently in or who has completed a Bureau of Labor and Industries (BOLI) and Oregon Building Codes approved electrical trades apprenticeship** and who intends to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles.

### Employment Opportunities:

Employment for electricians is expected to grow at about the statewide average. Total job openings are projected to be much higher than the statewide average. The labor market outlook for electricians in Oregon is to grow from 5% to 25%. Projected growth in Clatsop, Columbia, and Tillamook counties is 13.1%. Job growth among first-line supervisors/managers of electricians also can expect strong career opportunities, with Oregon growth rates of 15% through 2016, and projected growth of 21.4% in Clatsop, Columbia, and Tillamook counties.

### Potential Earnings:

The average Oregon entry wage for electricians is, on average, \$17.79, and the median wage is \$29.08. Electricians in Clatsop, Columbia, and Tillamook counties earn from \$26.37 at entry to a median of \$31.81. For first line supervisors, the entry wage is \$18.18, and the median wage is \$28.16. *See course list on next page.*

## INDUSTRIAL MECHANICS AND MAINTENANCE TECHNOLOGY APPRENTICESHIP ASSOCIATE OF APPLIED SCIENCE DEGREE

**Job Description:**

This associate of applied science degree program is **designed for a person currently in or who has completed a Bureau of Labor and Industries (BOLI) apprenticeship in the following trades** and who intends to work beyond the level of journeyman as coordinator, leader, or supervisor in industrial trade and community roles. The trades are boiler/turbine operator, die cast mold, heat and frost insulator, industrial mobile mechanic, machinist, millwright, motor winder, pipefitter, roll turner, instrumentation technician, and welder.

**Employment Opportunities:**

Overall, the average growth rate for all of the industrial mechanics and maintenance apprenticeship trades is about 12%. Welders will be the largest number of openings in Oregon, with 2,092 opening between now and 2014. The growth rate for all trades in this category is less than 8% through 2014, however applicants with broad skills in machine repair and maintenance will have favorable job prospects due to many retirements and a shortage of young workers with the necessary skills.

**Potential Earnings:**

Depending upon the employers' geographic location and any union/open shop affiliation, those completing this program can expect to earn \$11.09 to \$28.54 per hour. The average Oregon wage for welders is, on average, \$16.09. Welders in Clatsop, Columbia, and Tillamook counties earn from \$13.29 at entry to a median of \$18.10. Instrument technicians in Oregon earn about \$25.10.

**COURSE LIST: CONSTRUCTION TRADES, ELECTRICIAN, AND INDUSTRIAL MECHANICS & MAINTENANCE TECHNOLOGY APPRENTICESHIP AAS DEGREES:**

Course Number	Course Title	Credits	Additional Course List
WR 121	English Composition-Exposition* .....	3	Select three (3) courses from following list:  BA 206 Management Fundamentals .....3 BA 226 Introduction to Business Law .....4 BA 285 Human Relations in Business .....3 DRF 139 Technical Print Interpretation <i>or</i> .....3 BLD 140 Print Reading for Construction .....(3) EC 201 Principles of Economics .....4 PHL 102 Ethics.....3 PHL 103 Critical Reasoning.....3 PSY 201 General Psychology .....3 SP 112 Persuasive Speech.....3 SP 115 Intro. to Intercultural Communication..3 SP 219 Small Group Discussion .....3
WR 122	English Comp.-Argument* <i>and either</i> .3		
WR 227	Technical Report Writing* <i>or</i> .....(3)		
BA 214	Business Communication*.....(3)		
SP 111	Fundamentals of Public Speaking*.....3		
MTH 65	Math for Applied Sciences** <i>or</i> .....4		
MTH 95	Intermediate Algebra**.....(4)		
PSY 101	Psychology of Human Relations.....3		
CS 131	Intro. to Computer Info. Systems.....4		
	Arts and Letters/Social Sciences***.....3		
	Trade Competency + .....22		
	Related Training ++ .....36		
	Additional Course List.....9		
Total Credits.....		90	

\* Minimum grade "C" or higher.  
 \*\* Minimum grade "C", "P" or higher. Higher level math may be substituted.  
 \*\*\* Selected from Arts and Letters and Social Science listed on pages 23 and 24.  
 + Journey card (credit for prior certification).  
 ++ Minimum of 36 credits required.

# AUTOMOTIVE TECHNICIAN

## CAREER PATHWAY CERTIFICATE *OR* ONE-YEAR CERTIFICATE *OR* ASSOCIATE OF APPLIED SCIENCE DEGREE

### Job Description:

The automotive program at CCC is a real world, work based program of study and experience in the motor vehicle repair trade. It prepares those with automotive desire and aptitude to become the auto repair workforce for a hungry industry. Training is done with up-to-date, industry recognized equipment and instruction which meets national standards. The facility and its instruction is reviewed regularly by the CCC Automotive Advisory Committee composed of industry and service professionals from the local area, so you can be assured that your training experience will relate to what's really out there. Successful completion of the Automotive Technology AAS Degree will prepare you to be a solid entry-level technician.

### Employment Opportunities:

The need for trained and competent technicians in this field is critical, and job outlooks are very good. This occupation is expected to grow at about the statewide average, while total job openings are projected to be much higher than the statewide average. Projected annual job openings in Oregon are running nearly 300 per year.

### Potential Earnings:

Average hourly wage for Oregon is \$18.00, with top experienced wages running up to \$30.00 per hour. Statewide average annual income for this occupation is just above \$38,000.

### Entrance Requirements:

If you have either a high school diploma or a GED, the next step is to take the COMPASS test to determine your basic proficiency in math and reading/writing.

### LEARNING OUTCOMES

#### Role Descriptions

The Automotive Technician Program is designed to prepare persons intending to enter the workforce as entry-level technicians in the automotive repair industry.

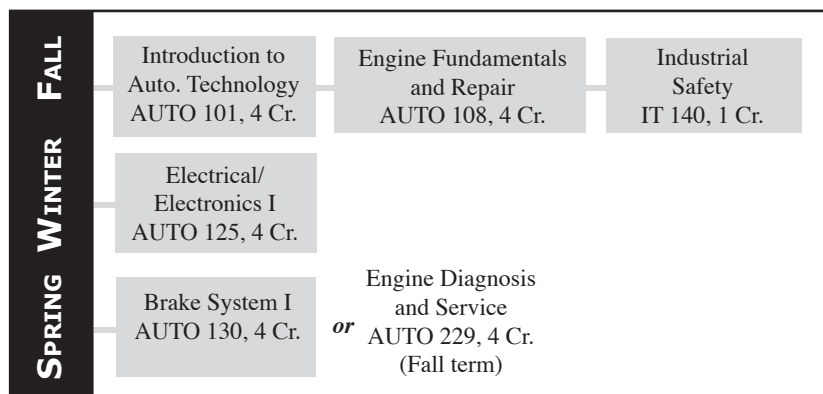
#### Program Learning Outcomes

Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Performing quality mechanical diagnosis and repairs to the following automotive systems:
  - Suspension and Steering • Brakes • Engine • Powertrain/Engine Performance • Electrical • HVAC • Trim
2. Using an understanding of electrical/electronic theory in assessing and diagnosing computer, module-based automotive repairs.
3. Assessing, prioritizing, and managing work tasks with a concern for customer satisfaction and fiscal responsibility.
4. Efficiently accessing resources (both electronic and print) for service and technical information necessary to complete specific automotive services and repairs.
5. Exhibiting personal punctuality, appearance, work time management, and communication skills that maximize continued employment.
6. Constantly assessing and resolving safety issues in the work environment using all the senses.

## YEAR ONE

Automotive Career  
Pathway Certificate



## YEAR ONE One-Year Certificate • AAS Degree

<b>FALL</b>	Intro to Automotive Technology AUTO 101, 4 Cr.	Engine Fundamentals and Repair AUTO 108, 4 Cr.	Industrial Safety *** IT 140, 1 Cr.	Math for Applied Sciences * MTH 65, 4 Cr.	Intermediate Algebra* MTH 95, 4 Cr.	
<b>WINTER</b>	English Composition -Exposition** WR 121, 3 Cr.	Steering & Suspension I AUTO 120, 4 Cr.	Electrical/ Electronics I AUTO 125, 4 Cr.	Intro to Computer Info Systems CS 131, 4 Cr.		
<b>SPRING</b>	Brake Systems I AUTO 130, 4 Cr.	Electrical/ Electronics II AUTO 135, 4 Cr.	Psychology of Human Relations PSY 101, 3 Cr. <i>or</i> Human Relations in Business BA 285, 3 Cr.	Materials Processing WLD 100, 2 Cr.	Cooperative Work Experience AUTO 280, 3 Cr.	CWE Seminar: Automotive AUTO 281, 1 Cr.

**Certificate Notes:** The program addresses the application of technical writing skill as the trainee delivers written quality control reports. Students demonstrate practical math applications throughout the program. Upon completion the trainees will receive a Certificate of Completion from CCC qualifying them as an entry-level automotive technician. With the addition of two years minimum field experience and upon successful completion of the NIASE exam, trainees may become a certified ASE Automotive Technician in their field of training.

## YEAR TWO AAS Degree

<b>FALL</b>	Electrical/ Electronics III AUTO 215, 4 Cr.	Engine Diagnosis & Service AUTO 229, 4 Cr.	English Composition** WR 122 <i>or</i> WR 123, 3 Cr.	Technical Report Writing** WR 227, 3 Cr.	Business Communication** BA 214, 3 Cr.	Health & Fitness for Life HPE 295, 3 Cr.	Electives **** 3 Cr.
<b>WINTER</b>	Advanced Steering, Suspension/Brakes AUTO 210, 4 Cr.	Engine Performance I AUTO 224, 4 Cr.	Shielded Metal Arc Welding WLD 101, 2 Cr.	Intro/Intercultural Communication SP 115, 3 Cr.	Conversational Spanish SPAN 111, 3 Cr.	Alcohol, Abuse and Addiction HS 101, 3 Cr.	Electives **** 3 Cr.
<b>SPRING</b>	Automotive HVAC AUTO 230, 4 Cr.	Engine Performance II AUTO 234, 4 Cr.	Applied Technology Project IT 110, 2 Cr.	Gas Metal Arc Welding WLD 102, 2 Cr.	Cooperative Work Experience AUTO 280, 2 Cr.		

**AAS Notes:** Upon completion the trainees will receive an Associate of Applied Science Degree, and a Competency Certificate from CCC qualifying them as an entry-level automotive technician. With the addition of two years minimum field experience, and upon successful completion of ASE exams of their choice, trainees may become ASE Automotive Technicians in their field of training.

**Note:** All AUTO, IT and WLD courses must be completed with a grade "C" or higher.

**Legend Notes:**

- \* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted.
- \*\* Minimum grade "C" or higher.
- \*\*\* IT 140 uses CD-ROM training modules. Satisfactory completion of this class is required before taking classes in any of the shop facilities.
- \*\*\*\* Selected from the Arts and Letters and Social Science lists on pages 23 and 24.

**ACCOUNTING TECHNICIAN  
ASSOCIATE OF APPLIED SCIENCE DEGREE****Job Description:**

This program prepares people for entry-level positions as accounting clerks, junior accountants, or bookkeepers who maintain financial records needed for business management. They prepare financial statements, payroll records and reports, and keep books and records up to date. They put together reports to show statistics such as cash receipts and expenditures, accounts payable and receivable, profit and loss, and financial position. They may complete worksheets, bank reconciliations, inventory reports, depreciation schedules, and income tax forms. Knowing how to use the computer is essential.

**Employment Opportunities:**

The opportunities depend on the economy, replacement needs, and continued use of accounting and bookkeeping services in public, private, and governmental organizations. The use of computers to perform routine accounting and bookkeeping functions is present in all different sizes of organizations.

**Potential Earnings:**

The average entry wage is about \$1,700 per month and the average maximum wage is about \$3,000 per month.

**LEARNING OUTCOMES: ACCOUNTING: ASSOCIATE OF  
APPLIED SCIENCE DEGREE**

**Role Descriptions:** The Accounting Program is designed for persons who intend to enter the accounting profession as assistant accountant, bookkeeper, or accounting clerk.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Apply fundamental accounting principles to the needs of an organization or individual client.
2. Compile and prepare accurate and timely financial information – journal entries, payroll, tax documents, reconciliations, and financial statements.
3. Organize, analyze, interpret, and present financial data that informs the decision-making process.
4. Convey financial information effectively to accounting professionals and non-financial persons both orally and in writing.
5. Use traditional and emerging technologies to improve quality of business solutions and increase productivity.
6. Collaborate effectively with diverse individuals and organizations to achieve their financial goals.
7. Articulate how accounting functions and practices impact an organization at every level.
8. Initiate and display professional and ethical behaviors individually and collaboratively that contribute to continued employability.

## YEAR ONE Accounting Technician AAS Degree

<b>FALL</b>	Introduction to Business** BA 101, 4 Cr.	Accounting Procedures I+ BA 131, 3 Cr.	English for Business OA 104, 4 Cr.	Intro. to Integrated Software MIC 145, 3 Cr.		
	Intro to Computer Info Systems CS 131, 4 Cr.	Accounting Procedures II+ BA 132, 3 Cr.	Spreadsheets CSL 107, 3 Cr.	Principles of Marketing BA 223, 3 Cr.		
	English Comp. -Exposition** WR 121, 3 Cr.	Automated Accounting BA 228, 3 Cr.	Human Relations in Business BA 285, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 4 Cr.	Personal Finance BA 218, 2 Cr.	10-Key Skill Building OA 131, 1 Cr.

<b>SUMMER</b>	Introduction to Business Law I BA 226, 4 Cr.	Payroll & Business Tax Accounting** BA 177, 3 Cr.	For 2012-13, some courses will be offered summer term. To complete the degree in 2 years, you may need to attend classes all 4 terms. Please refer to the online schedule for the most current program offerings. Be sure to meet with your advisor and contact a Business faculty member for options.			
---------------	---	--	--	--	--	--

## YEAR TWO Accounting Technician AAS Degree

<b>FALL</b>	Principles of Accounting I BA 211, 4 Cr.	Management Fundamentals BA 206, 3 Cr. <i>or</i> Small Business Management** BA 250, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr. <i>or</i> Small Group Discussion SP 219, 3 Cr.	Electives 4 Cr.	
	Principles of Accounting II + BA 212, 4 Cr.	Principles of Economics EC 201, 4 Cr. <i>or</i> Principles of Economics EC 202, 4 Cr.	Electives 4 Cr.		
<b>WINTER</b>					
<b>SPRING</b>	Business Communication** BA 214, 3 Cr.	Principles of Accounting III + BA 213, 4 Cr.	Cooperative Work Experience BA 280, 2 Cr.	Cooperative Work Experience Seminar ++ BA 281, 1 Cr.	Accounting Directed Project BA 295A, 4 Cr.

**Legend Notes:**

\* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted.

\*\* Minimum grade "C" or higher for successful completion of program.

+ "C" grade or better required in preceding course to take this level.

++ The CWE Seminar requirement for any Business degree can be met by completing one of the following courses: BA 281, CS 281, or OA 281.

**BUSINESS MANAGEMENT  
ASSOCIATE OF APPLIED SCIENCE DEGREE****Job Description:**

Business management is a term that collectively describes those who have management responsibilities in an organization. They may own and/or operate small firms or work for larger firms that sell goods and services or manufacture products. Their duties may include marketing, managing finances, supervising employees, purchasing goods and services, and sales.

**Employment Opportunities:**

Employment in this field is expected to remain steady. Prospects are very good for those who want to own and manage a business, especially if they have determination, talent, and a unique service or product.

**Potential Earnings:**

A typical entry-level wage could be \$16,000 per year, depending on experience; maximum may go to \$40,000 or more per year.

**LEARNING OUTCOMES: BUSINESS MANAGEMENT: ASSOCIATE OF APPLIED SCIENCE DEGREE**

**Role Descriptions:** The Business Management program is designed for persons currently working in or intending to work in the following kinds of roles: Small business owner/manager; assistant manager; office administrator.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Work to establish and promote a collaborative work environment where all voices are heard and valued as they contribute to shared goals.
2. Work within the ethical, legal, and regulatory parameters of the industry.
3. Calculate, compile, and analyze financial records to make prudent business decisions.
4. Attract, screen, hire, train, and supervise personnel.
5. Select and integrate appropriate current and emerging technologies to support business functions.
6. Use verbal, non-verbal, and written communication skills effectively in the business context.
7. Interact effectively with clients and customers.
8. Use critical thinking skills to solve business problems.
9. Exhibit work behaviors that maximize opportunity for continued employment, increased responsibilities, and business success.
10. Assist in the design, implementation, and continuous assessment of business strategies based on consumer needs and market changes.
11. Lead a work unit in a direction that aligns with stated organizational vision, mission, and values.



## YEAR ONE Business Management AAS Degree

<b>FALL</b> <b>WINTER</b> <b>SPRING</b>	Introduction to Business** BA 101, 4 Cr.	Accounting Procedures I+ BA 131, 3 Cr.	English for Business OA 104, 4 Cr.	Intro. to Integrated Software MIC 145, 3 Cr.		
	Intro to Computer Info Systems CS 131, 4 Cr.	Accounting Procedures II+ BA 132, 3 Cr.	Spreadsheets CSL 107, 3 Cr.	Principles of Marketing BA 223, 3 Cr.		
	English Comp. -Exposition** WR 121, 3 Cr.	Automated Accounting BA 228, 3 Cr.	Human Relations in Business BA 285, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 4 Cr.	Personal Finance BA 218, 2 Cr.	10-Key Skill Building OA 131, 1 Cr.

<b>SUMMER</b>	Introduction to Business Law I BA 226, 4 Cr.	Payroll & Business Tax Accounting** BA 177, 3 Cr.	For 2012-13, some courses will be offered summer term. To complete the degree in 2 years, you may need to attend classes all 4 terms. Please refer to the online schedule for the most current program offerings. Be sure to meet with your advisor and contact a Business faculty member for options.

## YEAR TWO Business Management AAS Degree

<b>FALL</b> <b>WINTER</b> <b>SPRING</b>	Management Fundamentals** BA 206, 3 Cr.	Fundamentals of Public Speaking <i>or</i> SP 111, 3 Cr.	Small Group Discussion SP 219, 3 Cr.	Electives 9 Cr.
	Principles of Economics <i>or</i> EC 201, 4 Cr.	Principles of Economics EC 202, 4 Cr.	Human Resource Management BA 224, 3 Cr.	Electives 5 Cr.
	Small Business Management** BA 250, 3 Cr.	Business Communication BA 214, 3 Cr.	Coop. Work Experience BA 280, 2 Cr.	Coop. Work Ex. Seminar ++ BA 281, 1 Cr.

### Legend Notes:

\* Minimum grade "C" or higher. Math courses numbered higher than MTH 95 may be substituted.

\*\* Minimum grade "C" or higher for successful completion of program.

+ Grade "C" or better required in BA 131 as a prerequisite to BA 132.

++ The CWE Seminar requirement for any Business degree can be met by completing one of the following courses: BA 281, CS 281, or OA 281.

**BUSINESS PROFESSIONAL  
ONE-YEAR CERTIFICATE PROGRAM  
CAREER PATHWAY CERTIFICATE**

**Job Description:**

Business professional clerks perform a variety of clerical duties essential to office operations. Most clerks type, file, and operate calculating and copying machines. They may send, open, route, or answer mail; answer telephones; and greet visitors. They may also compile records and reports, tabulate and post data, and compute wages, taxes, and commissions or payments. Operating word processing equipment efficiently is essential.

**Employment Opportunities:**

Demand is greatest for those who have good clerical skills and who understand the organization, activities, and terminology of the business. Knowledge of bookkeeping or processing of payroll records may also increase chances for a job.

**Potential Earnings:**

State employment data shows that the entry-level wage for Oregon Statewide is \$9.59 with an average wage of \$14.70 (annual average of \$30,579) and the top salary range being \$20.13. National median hourly wages is \$13.58 with wages ranging from \$8.31 to \$20.12 per hour.

**LEARNING OUTCOMES: BUSINESS PROFESSIONAL:****ONE-YEAR CERTIFICATE**

**Role Descriptions:** The Business Professional Certificate Program is designed for the person intending to work in an entry-level office position.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Use current and emerging word processing technologies to produce organizational documents and presentation materials.
2. Meet or exceed the current speed and accuracy requirements for typing and 10 key operation in the industry.
3. Individually and collaboratively manage multiple office tasks, prioritizing and re-prioritizing in response to changing demands.
4. Assess the image that is expected of office personnel in a specific industry group; reflect those expectations in personal appearance, professional conduct, and personal hygiene.
5. Produce clear, concise, and mechanically correct written documents.
6. Model effective customer service interactions.
7. Seek and respond to opportunities for increased responsibilities and professional advancement.
8. Understand office functions as they contribute to sound business practices and procedures.
9. Perform the general office procedures of filing, equipment operation, mail distribution, phone calls, and tasks requiring basic math calculations (like inventory).

## YEAR ONE

### Business Professional Career Pathway Certificate

<b>FALL</b>	English for Business OA 104, 4 Cr.	Intro to Integrated Software MIC 145, 3 Cr.
	Intro to Computer Info Systems CS 131, 4 Cr.	Spreadsheets CSL 107, 3 Cr.
	Math for Applied Sciences* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 4 Cr.	

## YEAR ONE

### Business Professional One-Year Certificate

<b>FALL</b>	Introduction to Business** BA 101, 4 Cr.	Accounting Procedures I+ BA 131, 3 Cr.	English for Business OA 104, 4 Cr.	Intro. to Integrated Software MIC 145, 3 Cr.	
	Intro to Computer Info Systems CS 131, 4 Cr.	Accounting Procedures II+ BA 132, 3 Cr.	Spreadsheets CSL 107, 3 Cr.	Principles of Marketing BA 223, 3 Cr.	
	English Comp. -Exposition** WR 121, 3 Cr.	Automated Accounting BA 228, 3 Cr.	Human Relations in Business BA 285, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 4 Cr.	Personal Finance BA 218, 2 Cr.

<b>SUMMER</b>	Introduction to Business Law I BA 226, 4 Cr.	For 2012-13, some courses will be offered summer term. To complete the degree in 1 year, you may need to attend classes all 4 terms. Please refer to the online schedule for the most current program offerings. Be sure to meet with your advisor and contact a Business faculty member for options.
---------------	---	---

#### Legend Notes:

\* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted.

\*\* Minimum grade "C" or higher for successful completion of program.

+ Grade "C" or better required in BA 131 as a prerequisite to BA 132.

# BUSINESS: RETAIL MANAGEMENT

## CAREER PATHWAY CERTIFICATE *OR* LESS-THAN-ONE-YEAR CERTIFICATE *OR* ONE-YEAR CERTIFICATE

### Job Description:

Retail management describes those who have leadership responsibilities in a retail organization. They may own and/or operate small retail firms or work for larger retail firms. Their duties may include marketing, managing finances, supervising employees, purchasing goods and services, and monitoring sales transactions.

### Employment Opportunities:

Employment in this field is expected to grow. Prospects are very good for those who want to own a retail business or enter management in the retail field, especially if they have determination and retail management skills. Continued education has been identified by the retail industry as a trait of successful upwardly mobile retail managers. Those who wish to continue to progress into management and roles of responsibilities should consider continuing their education to obtain the one-year certificate and then a degree in management.

### Potential Earnings:

**One-year Certificate and Less-than-one-year Certificate:** A typical entry level wage could be \$22,000 per year, depending on experience; maximum may go to \$60,000 or more per year with an average salary of \$33,000.

**Career Pathway Certificate:** A typical entry level wage in Oregon could be \$10.10 per hour, depending on experience; maximum may go to \$30.58 per hour with an average wage of \$16.92.

### LEARNING OUTCOMES: RETAIL MANAGEMENT: ONE-YEAR CERTIFICATE AND LESS-THAN-ONE-YEAR CERTIFICATE

**Role Descriptions:** The Retail Management one-year certificate prepares students for leadership responsibilities in a retail organization. They may own and/or operate small retail firms or work for larger retail firms. Their duties may include marketing, managing finances, supervising employees, purchasing goods and services, and monitoring sales transactions.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Establish and promote a collaborative work environment where all voices are heard and valued as they contribute to shared goals
2. Work within the ethical, legal, and regulatory parameters of the industry
3. Perform retail computations that are essential to sales and analyze the results of selling activities in retail
4. Demonstrate hard and soft skills in technology and communication to be effective support personnel, team leaders, and motivators
5. Select and integrate appropriate current and emerging technologies to support business functions
6. Use verbal, non-verbal, and written communication skills effectively in the business context
7. Interact effectively with customers
8. Use critical thinking skills to solve business problems
9. Exhibit work behaviors needed to successfully work as retail sales associates and to advance to higher levels of responsibility including supervisory management
10. Assist in the design, implementation, and continuous assessment of business strategies based on consumer needs and market changes
11. Demonstrate effective management, marketing, and human resource skills in the retail environment

## YEAR ONE

### Retail Management Career Pathway Certificate

FALL	Introduction to Business BA 101, 4 Cr.	Accounting Procedures I BA 131, 3 Cr.
	Principles of Marketing BA 223, 3 Cr.	
SPRING	Human Relations in Business BA 285, 3 Cr.	Retailing BA 249, 3 Cr.

## YEAR ONE

### Retail Management Less-Than-One-Year Certificate

FALL	Accounting Procedures I BA 131, 3 Cr.	Introduction to Business BA 101, 4 Cr.	or	Management Fundamentals BA 206, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.
	Principles of Marketing BA 223, 3 Cr.	Math for Applied Sciences* MTH 65, 4 Cr.		Intro. to Computer Info Systems CS 131, 4 Cr.	
SPRING	Business Communication BA 214, 3 Cr.	Human Relations in Business BA 285, 3 Cr.		Human Resource Management BA 224, 3 Cr.	Retailing BA 249, 3 Cr.

## YEAR ONE

### Retail Management One-Year Certificate

FALL	Accounting Procedures I BA 131, 3 Cr.	Introduction to Business BA 101, 4 Cr.	or	Management Fundamentals BA 206, 3 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.	Math for Applied Sciences * MTH 65, 4 Cr.	Electives ** 2 Cr.
	English Composition -Exposition WR 121, 3 Cr.	Intro. to Computer Info Systems CS 131, 4 Cr.		Principles of Marketing BA 223, 3 Cr.	Electives ** 5 Cr.		
SPRING	Business Communication BA 214, 3 Cr.	Human Relations in Business BA 285, 3 Cr.		Human Resource Management BA 224, 3 Cr.	Retailing BA 249, 3 Cr.	Electives ** 3 Cr.	

#### Legend Notes:

- \* Minimum grade of "C", "P" or higher. Math 95, or courses numbered higher than MTH 95 may be substituted.
- \*\* Students must complete ten (10) credits of electives to be selected from credit courses over the 100 level. The college agrees to accept credit courses over the 100 level from other institutions approved to offer this one-year certificate.

**(CADD TECHNICIAN)  
ONE-YEAR CERTIFICATE PROGRAM**

**Job Description:**

This competency based program will provide an individual with the prerequisite knowledge, skills, work habits and attitude required to perform both routine and creative tasks. These entry level CADD Technician tasks involve computer skills, design activities and limited theoretical knowledge and are performed under supervision. Course curriculum follows national specifications for qualification and certification of an entry level CADD Technician. This program is one step on the ladder of skills the trainees may achieve in their quest for a rewarding career. People who are creative and enjoy mind-hand challenges will find opportunities for advancement and experience a great sense of pride in workmanship as they ply their trade.

**Employment Opportunities:**

The job outlook for CADD Technicians is good regionally, nationally and globally. Entry level CADD Technicians are employed in a wide range of industries that use related tasks during daily operations.

**Potential Earnings:**

Presently starting wages in Oregon are about \$11.00/hour, with top wages to about \$22.00/hour as the individual's skill level increases.

**LEARNING OUTCOMES: COMPUTER AIDED  
DESIGN AND DRAFTING: ONE-YEAR  
CERTIFICATE**

**Role Descriptions:** The computer Aided Design and Drafting Program is designed for persons intending to work as a drafter, graphic designer, CAD technician, or computer graphics technician.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Use CAD and graphic systems to produce professional design documents.
2. Pursue continuing education opportunities within the emerging fields of computer aided design and graphics.
3. Analyze and solve conceptual problems with appropriate levels of design detail.
4. Practice healthy work habits.
5. Comply with the ethical and legal standards of the design professions.
6. Work on multiple projects simultaneously, efficiently managing time and information.
7. Use effective verbal, graphic, and written skills to communicate design concepts to clients and colleagues.
8. Work in a collaborative design environment.

## YEAR ONE CADD Technician One-Year Certificate

<b>FALL</b>	Technical Print Interpretation DRF 139, 3 Cr. <i>or</i> Print Reading for Construction BLD 140, 3 Cr.	Computer Aided Design I DRF 213, 4 Cr.	Basic Design ART 115, 3 Cr.	Intro to Integrated Software MIC 145, 3 Cr. <i>or</i> Intro to Computer Info Systems CS 131, 4 Cr.	Math for Applied Science* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 4 Cr.
	Computer Aided Design II DRF 214, 4 Cr.	English Composition ** WR 121, 3 Cr.	Psychology of Human Relations PSY 101, 3 Cr. <i>or</i> Human Relations in Business BA 285, 3 Cr.	Computer Graphics I ART 225, 3 Cr.	Technical Electives 3 Cr.
<b>WINTER</b>	Computer Aided Design III DRF 215, 4 Cr.	CADD Directed Project DRF 295, 4 Cr.	Cooperative Work Experience - CADD DRF 280, 2 Cr.	CWE Seminar DRF 281, 1 Cr.	Technical Electives 3 Cr.
<b>SPRING</b>					

### Technical electives

#### 6 Credits chosen from the following list:

ART 116	Basic Design II .....	3
ART 131	Introduction to Drawing .....	3
ART 226	Computer Graphics II .....	3
CS 125H	Beginning Website Design/Development.....	3
CSL 107	Spreadsheets .....	3
DRF 150	Construction Drawing .....	3
MIC 207	Presentation Software.....	2
WR 227	Technical Report Writing.....	3

### Legend Notes:

\* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted

\*\* Minimum grade "C".

### Note:

Upon successful completion, students will be prepared to take a national certification exam demonstrating their competency and proficiencies in CADD.

# EARLY CHILDHOOD EDUCATION

## EARLY CHILDHOOD EDUCATION ONE-YEAR CERTIFICATE OR ASSOCIATE IN APPLIED SCIENCE DEGREE

The Early Childhood Education (ECE) program prepares individuals for careers as in-home childcare workers or support staff in early childhood education settings such as childcare centers, preschools and Head Start programs, and as teacher's assistant in the early grades. The coursework is also strong preparation for students who continue to pursue their education, for higher level positions such as preschool teacher and manager and can be used towards an Associate in General Studies Degree (AGS) in Early Childhood Learning or an Associate of Arts Transfer Degree (AAOT), with a concentration in Early Childhood Education. A certificate will be awarded on completion of the required general education courses, a minimum of 27 credits from the core Early Childhood Education program, and additional credits from the technical electives for a total of 45 credits.

The AGS and AAOT ECE graduate is qualified to become an Assistant Teacher in an Early Childhood Learning Program. The program additionally serves as a strong foundational preparation for those individuals who are considering a career in education at all grade levels. A clear understanding of the foundations of development and learning gained through this program will support education majors at the university level. These courses are strongly recommended for anyone considering a career in humanities.

### Job Description:

Graduates help supervise and provide care and learning experiences for children in daycare, preschool programs and in elementary education. They are involved in providing school readiness skills for young children while providing them opportunities to learn through play. They will help design curriculum that promotes cognitive, social emotional and physical growth in children. They will also collect anecdotes, assist with classroom management, meals and more. Teacher aides provide classroom and clerical assistance to elementary and secondary teachers. Aides may grade papers and tests, assist with record keeping, supervise study halls, playgrounds, cafeterias, and hallways. Aides may also assist with classroom management, tutoring, and material preparation.

### LEARNING OUTCOMES: EARLY CHILDHOOD EDUCATION: ONE-YEAR CERTIFICATE

**Role Descriptions:** The Early Childhood Program is designed for the person intending to work as facilitators in a childcare facility or as an entry-level owner/operator of a child care center.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Communicate effectively with a diverse group of parents, children, co-workers, and community members concerning the needs of children and care-related issues.
2. Create and maintain a safe and healthy care and learning environment for children.
3. Comply with all state and federal regulations and laws for children in care.
4. Effectively supervise groups of children.
5. Recognize and respond appropriately to different cognitive, physical, social, and emotional developmental levels.
6. Engage children in developmentally appropriate foundational learning activities.
7. Identify environmental/family problems that are causing concern for children.

### Employment Opportunities:

Employment opportunities vary, depending on public and private funding. Job opportunities are present in local daycare centers, Head Start Programs, private and public preschool programs, private and public elementary schools, and in-home day care.

### Potential Earnings:

Many beginning childcare/aide positions start at minimum wage. Earnings potential ranges up to \$15.00 per hour. In-home day care earnings vary according to the number of children cared for.



## YEAR ONE One-Year Certificate • AAS Degree

<b>FALL</b>	Infant & Toddler Development ECE 140, 3 Cr.	Legal Issues in ECE ECE 150, 3 Cr.	English Composition -Exposition* WR 121, 3 Cr.	Fundamentals of Elementary Math. I * MTH 211, 3 Cr.	ECE Community Partnerships ECE 160, 3 Cr.	
<b>WINTER</b>	Growing Years Child Development HFS 226, 3 Cr.	Lab Science Discipline Area ** 4 Cr.	Cooperative Work Experience - ECE ECE 280, 2 Cr.	Cooperative Work Experience Seminar ECE 281, 1 Cr.	ECE Core Curriculum Planning ECE 120, 3 Cr.	Nutrition, Health & Safety of Young Children ECE 130, 3 Cr.
<b>SPRING</b>	Planning The ECE Environment ECE 110, 3 Cr.	Observation & Assessment ECE 161, 3 Cr.	Intro to Developmental Psychology PSY 215, 3 Cr.	Intro to Children's Literature ♦ ENG 221, 3 Cr.	Cooperative Work Experience - ECE ECE 280, 2 Cr.	

## YEAR TWO AAS Degree

<b>FALL</b>	Fundamentals Of Education ECE 111, 4 Cr.	Health & Fitness For Life HPE 295, 3 Cr.	Curriculum Development And Implementation ECE 264, 3 Cr.	Cooperative Work Experience - ECE ECE 280, 1 Cr.	Oral Communication Requirement SP, 3 Cr.	Arts & Letters Discipline Area 3 Cr.
<b>WINTER</b>	Social Science Discipline Area 3 Cr.	Fundamentals of Elementary Math II * MTH 212, 3 Cr.	English Composition -Argument * WR 122, 3 Cr.	Guidance & Classroom Behavior ECE 263, 3 Cr.		
<b>SPRING</b>	Teaching In An Anti-Bias Classroom ♦ ECE 262, 3 Cr.	Fundamentals of Elementary Math III * MTH 213, 3 Cr.	Literacy - Language Arts ECE 266, 3 Cr.	English Composition -Research Writing * WR 123, 3 Cr. <i>or</i> Technical Report Writing * WR 227	Arts & Letters Discipline Area 3 Cr.	Lab Science Discipline Area ** 4 Cr.

### Legend Notes:

- ♦ Courses designated as meeting the cultural literacy outcome and criteria
- \* Minimum grade "C" or higher for successful completion of program.
- \*\* Lab Science Discipline Area recommendations:
  - GS 106 Physical Science-Geology ..... 4
  - GS 109 Physical Science-Meteorology .. 4
  - BI 101 General Biology..... 4
  - BI 143 Marine Biology..... 4
  - BOT 101 Botany..... 4

To earn an AAOT instead of the AAS, the following two requirements are needed in addition to the above:

- Lab Science Discipline Area ..... 4
- Arts and Letters Discipline Area ..... 3

## FIRE SCIENCE

### ASSOCIATE OF APPLIED SCIENCE DEGREE • CAREER PATHWAY

#### Job Description:

The Fire Science Program offers training and education for those wanting a fire science career, and for career or volunteer firefighters seeking advancement. Some courses offered by Clatsop Community College allow students the option of completing lower division fire science requirements by independent study.

#### LEARNING OUTCOMES:

##### FIRE SCIENCE: ASSOCIATE OF SCIENCE DEGREE

**Role Descriptions:** The Fire Science program is designed for persons intending to work (or currently working) as a community fire fighter assuming leadership responsibilities and roles.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Perform the rescue and fire fighting functions in an emergency situation.
2. Maintain a sense of composure in an emergency situation.
3. Follow all safety guidelines and procedures to fully protect self and others in different conditions and work-related tasks.
4. Manage all aspects of successful day-to-day operations:
  - budget
  - equipment
  - records
  - human resources
5. Inspect premises and provide advice on compliance with safety codes and ordinances.
6. Plan, organize, and present educational activities that promote community awareness and safety.
7. Work effectively as a member of a fire fighting team and lead in specific department-related activities and operations.
8. Monitor one's own physical and mental health as it relates to job requirements, and engage in appropriate self-care actions.

Firefighters protect communities and forests against loss of life, injury, or destruction of property by fire, and respond to medical, rescue, hazardous materials, and other emergencies. Firefighters work as a team with each person assigned special tasks. They operate and maintain fire stations, equipment, and apparatus. They may inspect buildings for fire hazards and investigate fire causes. They spend time educating the public about fire safety, speaking in schools and to citizen groups. Coursework is accredited by the Oregon Fire Standards and Accreditation Board.

Students and entry level firefighters may be required to satisfactorily complete specific agility and endurance requirements, including climbing ladders while carrying tools; wearing personal protective equipment and self-contained breathing apparatus; entering hazardous areas; handling hoses and specified equipment, as well as demonstrating physical strength and overall flexibility.

#### Employment Opportunities:

The application process for fire department jobs is very competitive. Applicants who complete a Fire Science degree have a greater chance of gaining employment. In Region 1 (Clatsop, Columbia and Tillamook Counties) the 10-year growth rate for Firefighters is 5.6%, which is below the state growth rate of 9.2 % and the national average of 9% over the 2010-2020 period. Region 1 projected outlook is for 48 new and replacement jobs annually.

#### Potential Earnings:

State employment data shows that the average hourly wage for Oregon Statewide is \$25.12 (annual average of \$52,248). National median pay is \$45,250 per year. In rural areas firefighting maybe a volunteer position.

## YEAR ONE

Fire Science  
Pathway Certificate

FALL  
WINTER

EMT Basic Part 1  
EMT 151, 5 Cr.

Principles of  
Emergency Services  
FRP 101, 4 Cr.

Firefighter Skills  
FRP 151, 3 Cr.

Introduction to  
Wildland Firefighting  
FRP 190, 4 Cr.

EMT Basic Part 2  
EMT 152, 5 Cr.

## YEAR ONE

FALL WINTER SPRING	EMT Basic - Part 1 EMT 151, 5 Cr.	Firefighter Law FRP 156, 1 Cr.	Princ. Fire/Emergency Svcs. Safety/Survey FRP 157, 1 Cr.	Fire Codes & Ordinances FRP 172, 3 Cr.	Fire Behavior & Combustion FRP 121, 4 Cr.	Electives 3 Cr.
	EMT Basic - Part 2 EMT 152, 5 Cr.	Fire Protection Hydraulics & Water Supply FRP 158, 3 Cr.	Health & Fitness for Life HPE 295, 3 Cr.	English Composition -Exposition** WR 121, 3 Cr.	Technical Electives 4 Cr.	
	Hazardous Materials FRP 164, 3 Cr.	Building Construction for Fire Protection FRP 166, 3 Cr.	Intermediate Algebra * MTH 95, 4 Cr.	Fundamentals of Public Speaking SP 111, 3 Cr.	Electives 2 Cr.	

## YEAR TWO Fire Science AAS Degree

FALL WINTER SPRING	Intro to Computer Info Systems CS 131, 4 Cr. <i>or</i> Word Processing Procedures I OA 201, 3 Cr. <i>or</i> Intro to Integrated Software MIC 145, 3 Cr.		Principles of Emergency Services FRP 101, 4 Cr.	Psychology of Human Relations PSY 101, 3 Cr.		
	Firefighter Skills I FRP 151, 3 Cr.	Intro to Fire & Emergency Service Admin. FRP 169, 3 Cr.	Fire Protection Systems FRP 171, 3 Cr.	Social Science/ Humanities *** 3 Cr.		
	Emergency Service Rescue FRP 168, 3 Cr.	Firefighting Strategy & Tactics FRP 170, 3 Cr.	Fire Prevention FRP 181, 3 Cr.	Coop. Work Exp. - Fire Science FRP 280, 2 Cr.	CWE Seminar - Fire Science FRP 281, 1 Cr.	Technical Report Writing** WR 227, 3 Cr.

### Technical Electives

Students must complete eight credits from the following list of courses. Courses which are used to satisfy program requirements may not be used as technical electives. Some listed courses may not be offered every year.

Course Number	Course Title	Credits
BI 231,232,233	Human Anatomy and Physiology I, II, III .....	4 ea
CJ 203	Crisis Intervention.....	3
CPL 120	Credit for Prior Learning .....	3
EMT 165, 166	Emergency Medical Technician Intermediate-Part 1,2... 4 ea	4 ea
FRP 155	Instructional Methodology.....	2
FRP 174	Fire Investigation I.....	3
FRP 190	Intro. to Wildland Firefighting .....	4
FRP 280	Cooperative Work Experience - Fire Science .....	3
EMT 176	Emergency Response: Transportation.....	2
EMT 177	Emergency Communication & Documentation.....	2

### Legend Notes:

**Notes:** The FRP courses will be offered on a rotating basis every two years. All FRP courses require instructor approval for registration.

All FRP courses require instructor approval for registration.

\* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted.

\*\* Minimum grade "C" or higher.

\*\*\* Selected from Arts and Letters and Social Science lists, pages 23 and 24.

# HISTORIC PRESERVATION & RESTORATION

## ONE-YEAR CERTIFICATE *OR* ASSOCIATE OF APPLIED SCIENCE DEGREE

This program prepares individuals for work in the building trades with an emphasis on the preservation and restoration of historic and vintage residential and commercial buildings. The program offers both historic preservation theory and practical hands-on construction techniques. Students gain the necessary knowledge, skills and work habits to successfully plan, then renovate and/or restore structures in historically accurate ways utilizing both traditional and modern materials and techniques. Graduates will be able to work as remodelers, carpenters, subcontractors and general contractors.

The first year of the program emphasizes general construction skills and techniques. Students also develop a basic understanding of issues in historic preservation and restoration. Students successfully completing the first year will receive a Certificate in Historic Preservation and Restoration.

The second year of the program emphasizes planning for and completing historic preservation and restoration construction projects. Students develop a deeper understanding of the history, materials and methods for working on historic structures. Students successfully completing the second year will receive an Associate of Applied Science in Historic Preservation and Restoration.

### Employment Opportunities

The job outlook for Remodeling and Restoration, Historic Preservation, and Construction is good locally, regionally and nationally. Job opportunities are available with contractors, remodelers, local historical societies, and city and county governments. Demand is greatest for those who have a well-rounded understanding of the organization, terminology, customer service, and activities of the business.

### Potential Earnings

Potential starting wage in Oregon is \$11.15 per hour and the average wage is \$19.70 per hour as the individual's skill level increases. Historic restoration expertise often commands premium remuneration.

**LEARNING OUTCOMES: CERTIFICATE: Role Descriptions:** The Historic Preservation and Restoration Certificate program is designed for persons currently working in, or intending to work in, the construction trades with an emphasis on the preservation and restoration of historic and vintage buildings.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

- Communicate clearly and effectively through speech, writing and drawing.
- Practice healthy work habits; safely use tools and materials.
- Work on multiple projects simultaneously, efficiently managing time and resources.
- Work in a collaborative environment.
- Demonstrate knowledge of regional architectural history.
- Research, analyze and solve design and construction problems.
- Use appropriate materials and methods for renovation and new construction.
- Work within parameters of building codes, regulations and zoning.

**LEARNING OUTCOMES: AAS DEGREE: Role Descriptions:** The Historic Preservation and Restoration Degree program is designed for persons currently working in, or intending to work in, the construction trades with an emphasis on the preservation and restoration of historic and vintage buildings.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

- Communicate clearly and effectively through speech, writing and drawing.
- Practice healthy work habits; safely use tools and materials.
- Work on multiple projects simultaneously, efficiently managing time and resources.
- Work in a collaborative environment.
- Demonstrate knowledge of regional architectural history.
- Research, analyze and solve design and construction problems.
- Use appropriate materials and methods for renovation and new construction.
- Work within parameters of building codes, regulations and zoning.
- Incorporate historic preservation and restoration theory and methods into construction projects.
- Use sustainable building practices.
- Estimate, plan and manage construction projects.

## YEAR ONE One-Year Certificate • AAS Degree

<b>FALL</b>	Introduction to Historic Preservation BLD 101, 1 Cr.	Construction Safety for Historic Preservation BLD 110, 1 Cr.	Tool Safety for Historic Preservation BLD 111, 1 Cr.	Printreading for Construction BLD 140, 3 Cr.	Construction Math BLD 104, 2 Cr.	Intro to Integrated Software MIC 145, 3 Cr. <i>or</i> Intro to Computer Info Systems CS 131, 4 Cr.	Workshops <sup>1</sup> 4 Cr.
	Residential Materials & Methods BLD 103, 3 Cr.	Construction Drawing DRF 150, 3 Cr.	Workshops <sup>1</sup> 5 Cr.	English Composition -Exposition** WR 121, 3 Cr.			
	Math for Applied Science*** MTH 65, 4 Cr. <i>or</i> Intermediate Algebra*** MTH 95, 4 Cr.	Psychology of Human Relations PSY 101, 3 Cr. <i>or</i> Small Group Discussion SP 219, 3 Cr.	Building Codes I BLD 151, 3 Cr.	Historic Preservation & Restoration Techniques <sup>1</sup> 4 Cr.	History of Pacific Northwest Architecture ARCH 215, 3 Cr.		
<b>WINTER</b>							
<b>SPRING</b>							

## YEAR TWO AAS Degree

<b>FALL</b>	Historic Preservation I BLD 210, 3 Cr.	Green Building BLD 206, 3 Cr.	Workshops <sup>1</sup> 5 Cr.	Electives **** # 3 Cr.		
	Historic Preservation II BLD 211, 3 Cr.	Project Management BLD 207, 3 Cr.	Workshops <sup>1</sup> 5 Cr.	Electives **** # 3 Cr.		
	Cooperative Work Experience BLD 280, 2 Cr.	CWE Seminar BLD 281, 1 Cr.	Historic Preservation & Restoration Project BLD 295, 4 Cr.	Historic Preservation & Restoration Techniques <sup>1</sup> 3 Cr.	Technical Report Writing ** WR 227, 3 Cr.	Electives **** # 3 Cr.
<b>WINTER</b>						
<b>SPRING</b>						

### Workshops:

<sup>1</sup> For the Certificate Program, 13 credits must be taken from any of the one-credit workshops listed below. For the Associate of Applied Science Program, another 13 credits from the following lists must also be successfully completed, for a total of 26 credits.

Construction Skills:                      Historic Pres. & Rest. Techniques:  
BLD 120-BLD 129                      BLD 220-BLD 229

Materials:                                      Historic Materials:  
BLD 131-BLD 139                      BLD 231-BLD 239

Topics of the above workshops will include:

Materials	Moisture and Thermal Protection
Stairs	Foundation Systems
Floor Systems	Doors and Windows
Wall Systems	Finish Work

### Legend Notes:

\*\* Minimum grade "C".

\*\*\* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted.

\*\*\*\* Total of nine (9) credits of electives chosen from courses numbered 100 or higher; however, suggested electives are listed below.

ART 225	Computer Graphics I	.....3
ART 226	Computer Graphics II	.....3
ART 131	Introduction to Drawing	.....3
BA 101	Introduction to Business	.....4
DRF 213	Computer Aided Design I	.....4
DRF 214	Computer Aided Design II	.....4
DRF 215	Computer Aided Design III	.....4
PHL 102	Ethics	.....3

# To specialize in the area of Sustainability in Historic Preservation and Restoration, the following courses are suggested as electives:

SET 102	Introduction to Sustainability	.....3
SET 158	Building Energy Analysis	.....2

## CAREER PATHWAY CERTIFICATE *OR* ONE-YEAR CERTIFICATE

### **ONE-YEAR CERTIFICATE: Job Description:**

Individuals completing this competency-based training program will have the requisite knowledge, skills, work habits and attitude to perform work on a vessel in an entry level position. A seaman employed in the maritime industry works as a deckhand on commercial vessels and is responsible for keeping the vessel and its equipment in working order. The individual may stand watches—conducting the vessel from one point to another while adhering to the principles of navigation and the rules of the road. Upon completion of the One-Year Certificate program, students will have the skills and knowledge to pass the United States Coast Guard Able Seaman exam and, those meeting USCG requirements, may complete the program with a Merchant Mariner’s Document.

### **Employment Opportunities:**

The job outlook for crewmembers in the maritime industry is excellent regionally, nationally, and globally. Entry level deckhands work on a wide range of vessels performing a variety of tasks. Contracts often require crewmembers to work twelve hour days for weeks or months at a time while away from home.

### **Potential Earnings:**

Wages for sailors and marine oilers average \$17.00 per hour.

### **CAREER PATHWAY CERTIFICATE: JOB DESCRIPTION:**

Individuals completing this competency-based training program will have the requisite knowledge, skills, work habits and attitude to perform work as a deckhand on commercial vessels and with experience may be responsible for keeping the vessel and its equipment in working order. The individual may stand watch—conducting the vessel from one point to another while adhering to the principles of navigation and the rules of the road.

### **Employment Opportunities:**

The job outlook is excellent, nationally and is projected to grow.

### **Potential Earnings:**

The entry level rate of pay for sailors and marine oilers, varies with individual companies, in Oregon the average is \$17.00 per hour. Employee may be provided with meals and living quarters while on-board the vessel.

### **LEARNING OUTCOMES: SEAMANSHIP: ONE-YEAR CERTIFICATE**

**Role Descriptions:** The Seamanship Certificate is designed for persons intending to work in an entry level position on maritime vessels.

**Intended Learning Outcomes:** Learning experiences in the certificate program are designed to assist the student in realizing the following outcomes:

1. Carry out orders to implement the voyage plan as directed by the officer of the watch.
2. Perform the duties of a “lookout” on a vessel.
3. Perform the duties of a “helmsman” on a vessel under the officer of the watch.
4. Safely assess the potential risk from an accidental chemical release; respond appropriately based on the level of threat to both people and the environment.
5. Exhibit safe work habits in daily and emergency situations on the deck of a vessel.
6. Operate and maintain deck equipment on a vessel both in port and at sea.

## YEAR ONE Seamanship One-Year Certificate

<b>FALL</b>	Marine Safety MAS 150 2 Cr. <i>or</i> STCW Basic Safety Training MAS 135, 3 Cr.	Intro to Watch Keeping MAS 155 2 Cr.	Practical Navigation MAS 165 2 Cr.	Charts, Aids to Nav & Mag. Compasses *** MAS 168, 3 Cr.	Rules of the Road *** MAS 175 3 Cr.	Seamanship I MAS 181 2 Cr.	Technical Electives 5 Cr.
	<b>WINTER</b>	Seamanship II MAS 182, 2 Cr.	Math for Applied Science* MTH 65, 4 Cr.	<i>or</i> Intermediate Algebra * MTH 95, 4 Cr.	Technical Electives 6 Cr.		
<b>SPRING</b>		Seamanship III MAS 183, 2 Cr.	Psychology of Human Relations PSY 101, 3 Cr.	English Composition - Exposition** WR 121, 3 Cr.	Technical Electives 6 Cr.		

**Legend Notes:**

- \* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted.
- \*\* Minimum grade "C" or higher.
- \*\*\* Course is offered in an individualized format.
- + Four (4) credits of MAS 191, Deckhand Practicum, may be applied toward the One-Year Maritime Science certificate.

**TECHNICAL ELECTIVES:** Students must complete 17 credits from the following list of courses.

Course Number	Course Title	Credits
MAS 100	Maritime Occupations .....	2
MAS 121	Able Seaman Training .....	4
MAS 130	Radar Observer: Original Endorsement, Unlimited..	2
MAS 135	STCW Basic Safety Training .....	3
	(if not already taken as a degree requirement)	
MAS 137	Radar Navigation.....	2
MAS 138	STCW Proficiency in Survival Craft.....	2
MAS 139	STCW Basic Firefighting .....	1
MAS 144	STCW Advanced Firefighting .....	2
MAS 147	Rules and Regulations .....	3
MAS 148	Vessel Stability .....	3
MAS 164	Introduction to Navigation*** .....	3
MAS 170	Marine Weather, Tides, Currents, and Waves*** .....	3
MAS 171	Coastal Navigation & Voyage Planning .....	3
MAS 180	Marine Electronics***.....	3
MAS 184	Galley Cooking.....	2
MAS 185	Bridge to Bridge Communication .....	3
MAS 189	Applied Rigging Technology.....	2
MAS 190	Vessel Practicum.....	1-3
MAS 191	Deckhand Practicum + .....	1-4
MAS 192	Intro to Deck Machinery & Safety .....	2
MAS 193	Intro to Engine Room Maintenance & Safety .....	2
MAS 201	Tank Ship Dangerous Liquids (Tankerman PIC) .....	4
MAS 208	Ratings Forming Part of a Navigational Watch.....	2
MAS 209	Ratings Forming Part of a Navigational Watch (RFPNW) - Lookout Only .....	1
MAS 280	Cooperative Work Experience: Maritime Sciences...	4
IT 140	Industrial Safety.....	1
WLD	Welding (any class) .....	1-3

**Career Pathway Seamanship Certificate**

The **Career Pathway Seamanship Program** prepares students for entry level employment as a seaman in the maritime industry. Upon completion of this program, students will have the skills and knowledge to continue studies to complete the Seamanship One-year Certificate and/or Vessel Operations Associate of Applied Science Degree. This program will also assist students in obtaining the basic skills and knowledge to continue their studies towards the United States Coast Guard Able Seaman document exam. Those meeting USCG requirements and having the commensurate deck service time, may qualify for a U.S. Merchant Mariner’s Document.

Course #	Course Title	Credits
MAS 135	STCW Basic Safety Training* .....	3
MAS 155	Introduction to Watch Keeping*.....	2
MAS 164	Introduction to Navigation*, ** .....	3
MAS 168	Charts, Aids to Nav. & Mag. Compasses *, ** .....	3
MAS 181	Seamanship I* .....	2
MAS 182	Seamanship II* .....	2
MAS 183	Seamanship III*.....	2
Total Credits: .....		17

- \* Classes are available Fall, Winter and Spring terms. Some classes are also available Summer term.
- \*\* Course is offered in an individualized format.

## ASSOCIATE OF APPLIED SCIENCE DEGREE

### Job Description:

This competency-based program will provide an individual with the requisite knowledge, skills, work habits and attitude to perform work on a vessel as an entry level deckhand. Job tasks include handling lines, performing routine vessel and gear maintenance, participating in drills, performing galley duties, standing watches, and becoming part of a working crew in a close quarters environment. Course curriculum follows industry needs as presented by the Maritime Science Department advisory committee. Classes are taught in a practical atmosphere and employ extensive use of a training vessel. This program would be of interest to people who desire a professional career path with advancement opportunities that are in a non-traditional setting. Students completing this program will be qualified to work as crewmembers on research vessels, merchant ships, tugs, charter and passenger vessels, and commercial fishing vessels. Professional licensing is available to students who meet US Coast Guard requirements.

### Employment Opportunities:

The job outlook for crewmembers in the maritime industry is good regionally, nationally, and globally. Entry level deckhands work on a wide range of vessels performing a variety of tasks. Contracts often require crewmember to work twelve hour days for weeks or months at a time while away from home.

### Potential Earning:

Wages for sailors and marine oilers average \$17.00 per hour. Captains and mates may earn 3 to 4 times as much, depending upon experience.

### LEARNING OUTCOMES: VESSEL OPERATIONS: ASSOCIATE OF APPLIED SCIENCE DEGREE

**Role Description:** The Vessel Operations degree is designed for the person who intends to be employed in higher level positions within the maritime industry.

**Intended Learning Outcomes:** Learning experiences in the degree program are designed to assist the student in realizing the following outcomes:

1. Carry out orders to implement the voyage plan as directed by the officer of the watch.
2. Perform the duties of a "lookout" on a vessel.
3. Perform the duties of a "helmsman" on a vessel under the officer of the watch.
4. Safely assess the potential risk from an accidental chemical release; respond appropriately based on the level of threat to both people and the environment.
5. Exhibit safe work habits in daily and emergency situations on the deck of a vessel.
6. Operate and maintain deck equipment on a vessel both in port and at sea.
7. Plan and organize voyage and modify voyage plan enroute to reach destination safely.
8. Recognize changes to the handling and stability characteristics of a vessel; make calculations necessary to solve handling, loading, and stability safety issues.
9. Knowledge of routine navigational procedures and deck operations. Preparation to become a functioning crew member when reporting on board a vessel.
10. Knowledge of the items required for inspected vessel compliance with Coast Guard regulations. Knowledge in the use of CFRs to determine vessel requirements. Prepare vessels for Coast Guard examination.
11. Principles of ship handling and the ability to safely operate vessels in varied environments.



## YEAR ONE

Course #	Course Title	Credits
HM 120	Hazardous Waste Operations and Emergency Response ( <i>or higher</i> ).....	1
MTH 65	Math for Applied Sciences* <i>or</i> .....	4
MTH 95	Intermediate Algebra* ( <i>or a MTH course higher than MTH 95</i> ).....	(4)
WR 121	English Composition-Exposition* ..... ( <i>or a Writing course higher than WR 121</i> )	3
PSY 101	Psychology of Human Relations .....	3
IT 140	Industrial Safety + .....	1
MAS 181	Seamanship I .....	2
MAS 182	Seamanship II.....	2
MAS 183	Seamanship III.....	2
MAS 150	Crewmember Marine Safety Training, <i>or</i> .....	2
MAS 135	STCW Basic Safety Training .....	(3)
MAS 155	Introduction to Watchkeeping.....	2
MAS 164	Introduction to Navigation .....	3
MAS 165	Practical Navigation .....	2
MAS 168	Charts, Aids to Navigation, & Marine Compasses.....	3
MAS 175	Rules of the Road .....	3
MAS 190	Vessel Practicum.....	S ... 1
MAS 100	Maritime Occupations .....	S ... 2
MAS 170	Marine Weather, Tides, Currents & Waves .....	S ... 3
WLD	Welding (any class).....	S ..1-3

## YEAR TWO

Vessel Operations  
AAS Degree

Course #	Course Title	Credits
BA 214	Business Communication* ( <i>or a WR course higher than WR 121</i> ) .....	3
HS 101	Alcohol use, Misuse, and Addiction ( <i>or HS 102, Drug Use, Misuse, &amp; Addiction or any acceptable 3 credit Humanities or Social Science course</i> ) ..3	
CS 101	Fundamentals of Computing ( <i>or CS or MIC course higher than CS 101</i> ).....	1
GS 104	Physical Science - Physics <i>or</i> .....	4
GS 106	Physical Science - Geology <i>or</i> .....	4
GS 109	Physical Science - Meteorology .....	4
MAS 186	Small Vessel Operations I.....	2
MAS 187	Small Vessel Operations II.....	2
MAS 188	Small Vessel Operations III .....	2
MAS 171	Coastal Navigation & Voyage Planning .....	3
MAS 180	Marine Electronics.....	2
MAS 190	Vessel Practicum.....	S 2
MAS 147	Rules and Regulations .....	S 3
MAS 148	Vessel Stability.....	S 3
MAS 185	Bridge to Bridge Communication.....	S 3
MAS 130	Radar Observer: Original Endorsement, Unlimited .....	S 2
IT 110	Applied Technology Project .....	S 2

### Technical Electives Course List

Students must complete 35 elective credits chosen from either the suggested electives or the list of technical electives. The following technical electives may be substituted for any suggested elective (S).

MAS 184	Galley Cooking.....	2
MAS 190	Vessel Practicum.....	1 - 3
MAS 191	Deckhand Practicum.....	1 - 4
MAS 125	500/1600/Unlimited License Prep.....	2 - 8
MAS 201	Tank Ship Dangerous Liquids (Tankerman PIC) .....	3
MAS 208	Ratings Forming Part of a Navigational Watch.....	2
MAS 280	Marine Cooperative Work Experience .....	1 - 4
**MAS	Any other Maritime Science course numbered 100 or above may be used for Technical Electives	
AUTO 108	Engine Fundamentals and Repair.....	4
IT 101	Engine Rebuilding – Gasoline.....	4
IT 110	Applied Technology Project .....	2
IT 208	Mechanical Drives and Transmission of Power .....	4
PH 201,202,203	General Physics .....	5 ea
PH 211,212,213	Physics with Calculus.....	5 ea

**\*\*Note:** No more than a total of 9 (nine) credits of any combination of the following courses may be applied to this degree:

MAS 120	U.S. Coast Guard Marine License Training ..	3
MAS 121	Able Seaman Training.....	4
MAS 122	OUPV Training .....	4
MAS 123	100 Ton Master Training.....	5
MAS 124	200 Ton Master Training .....	6
MAS 125	500/1600/Unlimited License Prep.....	2

### Legend Notes:

S = Suggested Elective

\* Minimum grade "C", "P" or higher.

+ IT 140 uses CD-ROM module training.

Satisfactory completion of this class is required before taking classes in any of the shop facilities.

## SPECIALIZED TRAINING PROGRAMS AND COURSES IN THE MARITIME SCIENCES

Clatsop Community College's Maritime Science Department (MSD) offers specialized maritime training programs and courses. We offer training for individuals at entry skill levels and for mariners employed within the industry. An example of a group of specialized training courses and programs are the U.S. Coast Guard approved programs. The approved programs may do one, or more, of the following; (1) meet U.S. Coast Guard and International Maritime Organization (IMO) training requirements; (2) lead to Coast Guard and STCW (Standards of Training, Certification and Watchkeeping for Seafarers) endorsements; or (3) satisfy Code of Federal Regulation (CFR) requirements.

Courses that lead to U.S. Coast Guard license endorsements include:

1. Radar Observer Original, "Unlimited". (40-hour course)
2. Radar Observer Original, "Rivers". (24-hour course)
3. Radar Observer Re-Certification, "Unlimited" and "Rivers". (8 and 24-hours)
4. Automatic Radar Plotting Aids. (ARPA)
5. Global Marine Distress Safety System. (GMDSS)
6. Celestial Navigation, "Upon Ocean" endorsement for licenses up to 1600 gross tons. (Minimum of 60-hours required for licenses of 500 gross tons or greater)\*
7. Proficiency in Survival Craft. (32-hour course)

The College's License Training Program is approved to satisfy CFR requirements. The approval allows students to complete the Training Program in lieu of U.S. Coast Guard testing for the following licenses:

1. Master/Mate 200 Gross Tons - Near Coastal/Inland Waters.\*
2. Master/Mate 100 Gross Tons - Near Coastal/Inland Waters.\*
3. Operator of Uninspected Passenger Vessels.\*
4. Master/Operator Limited Scope Waters. (40-hours)

\*See the section on class format for an explanation of required hours for modular classes.

Maritime Science Department courses that meet CFR, IMO or Federal Communication Commission (FCC) requirements include:

1. Marine Safety (24-hour), CFR requirements.
2. Basic Safety Training (40-hour), IMO and CFR requirements.
3. HAZWOPER (24 and 40 hour), CFR requirements.
4. Global Marine Distress Safety System (GMDSS) Radio Operator, CFR requirements.
5. Bridge Resource Management (24 hour) IMO & CFR requirements.

### **Maritime Science Department's class format**

Classes in the Maritime Science Department meet 8:00 A.M. - 5:00 P.M., Monday through Friday. The courses, or programs, marked with an asterisk (\*) are modular classes. Students may start modular classes any day of the week and complete the required modules at their own learning rate. We sell most modules in forty-hour blocks of time.

The modular format allows students working in the industry additional flexibility for upgrading skills and training requirements.

## **Certificate and Degree Programs**

The College offers a Seamanship One-Year Certificate and an Associate of Applied Science Degree in Vessel Operations.

## **Marine Fire Training**

The College offers Basic, Advanced & Combined Marine Fire Fighting training in the Fire Research and Response Center (FRRC). The Basic Fire class is a two-day USCG approved course that meets international standards and includes the theory of fire, fire prevention principles, fire detection systems, self-contained breathing apparatus, search & rescue, emergency egress and live fire fighting. The Combined (basic & advanced) Marine Fire Fighting training is a five-day USCG approved course that meets all requirements for basic & advanced fire fighting. Course elements include those of Basic Fire Fighting, plus stowage and handling of hazardous materials, fire fighting effects on ship stability, incident command systems (ICS), fire fighting in port, team training, and complex live fire fighting scenarios.

The FRRC provides a training facility for land-based fire fighters from the regional area and beyond. Classes can be arranged to meet the needs of specific groups. For additional information contact the Maritime Science Department at 503-325-7962.

## **Radar Observer Program**

The U.S. Coast Guard approved Radar Observer Program offers you five different courses: Five-day original endorsement, three-day "Rivers" original endorsement, one-day "Rivers" recertification, three-day recertification, and one-day recertification. The five-day original endorsement class is required if you are operating vessels 200 gross tons or over on an ocean route or 300 gross tons on any route. The three-day "Rivers" original endorsement course meets federal requirements for operators of towing vessels of 26 feet or more in length operating solely on rivers. The three-day recertification class is designed for you if you need to renew your "unlimited" endorsement and would like to practice your plotting skills before taking the renewal exam. The one-day recertification class does not include any instruction or practice time and is limited to the exam only. The one-day recertification class is recommended only if you have recent time on direct plotting radars. Instruction in the three- and five-day classes will include radar operation, characteristics of radar waves, target identification, plotting (three-day "Rivers" does not include plotting), and rules of the road for using radar.

Cost of the classes includes books and classroom materials. You must pay at the time you reserve your class seat. For more information about registering for the radar school, call the Maritime Science Center, 503-325-7962.

## **ARPA Training**

The U.S. Coast Guard approved Automatic Radar Plotting Aid (ARPA) course meets the requirements for STCW certification and endorsement for master, mate and officer in charge of a navigational watch on ships equipped with ARPA radar. Students must currently hold an unlimited radar endorsement. The 32-hour course covers principles, performance standards and operation of ARPA radar and includes recertification for the unlimited radar endorsement. Additional information about this program can be obtained by contacting the Maritime Science Center, 503-325-7962.

## **STCW GMDSS Training**

The U.S. Coast Guard approved 70-hour Global Marine Distress Safety System (GMDSS) course meets the minimum required training for certification as GMDSS operator in accordance with USCG and STCW standards. The course includes principles of communications, GMDSS communications system, GMDSS equipment, distress alerting and operational procedures. The student will operate actual GMDSS equipment with state of the art simulation hardware. Additional information about this program can be obtained by contacting the Maritime Science Center, 503-325-7962.

## **Basic Safety Training**

The U.S. Coast Guard STCW-95 approved 40-hour Basic Safety Training class includes the following modules; Personal Safety & Social Responsibility; Basic Fire Fighting; Personal Survival Techniques and Elementary First Aid. This Class meets the STCW-95 requirements for mariners sailing beyond the boundary line.

## **Bridge Resource Management**

The U.S. Coast Guard STCW-95 approved 24-hour Bridge Resource Management course satisfies the requirements for procedures for bridge team work, as set forth in Title 46 CFR, parts 10.205(3)(0) and Section B-VIII/2 of the STCW code.

## **Proficiency in Survival Craft (Lifeboatman)**

The U.S. Coast Guard approved 32-hour Proficiency in Survival Craft course satisfies the requirements for individuals in charge of survival craft, as set forth in title 46 CFR parts 12.10 and table A-V/1/2-1 of the STCW code.

## CAREER PATHWAY CERTIFICATE *OR* ONE-YEAR CERTIFICATE PROGRAM

**One Year Certificate:**

The Medical Assistant Program prepares students for entry level employment in a physician's clinic or a variety of other health care settings. Program graduates will have the academic, administrative and clinical skills necessary for an allied healthcare professional. Courses cover anatomy, physiology, and medical terminology, as well as, computers, office procedures, communication, psychology and math.

**Job Description:**

Medical Assistants perform routine administrative and clinical tasks to keep healthcare delivery systems running smoothly. An MA will work in reception, scheduling, medical records, insurance billing, and as a medical office secretary. An MA will also work as a clinical assistant to the physician by preparing patients for examinations, assisting with treatments, collecting and testing specimens and educating patients on health promotion and disease prevention issues.

**Employment Opportunities:**

The job outlook is excellent, locally, regionally, and nationally, and is projected to grow.

**Potential earnings:**

The average rate of pay for Medical Assistants in Oregon is \$29,274 annually.

**MEDICAL ASSISTANT: THREE-TERM  
CERTIFICATE**

**Role Descriptions:** The Medical Assistant Program is designed for persons intending to work in a physician's office, performing routine administrative clinical procedures that keep health care delivery settings running smoothly.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Interact in a caring and respectful manner with patients, families, and the healthcare team.
2. Establish and manage office procedures and implement medical documentation systems using appropriate medical terminology.
3. Perform the administrative business tasks required in a medical office.
4. Assist the physician and other members of the health care team in clinical procedures related to the examination and treatment of patients.
5. Comply with quality assurance requirements in performing clinical laboratory procedures.
6. Perform common diagnostic procedures under a licensed healthcare provider to ensure patient comfort and safety.

## YEAR ONE **Medical Assistant Career Pathway Certificate**

<b>FALL</b>	Medical Assistant Clinical Procedures MA112, 3 Cr.	English for Business OA 104, 4 Cr.	Office Skills for the Medical Office OA 126, 4 Cr.	Body Structure and Function I * MA 120, 4 Cr.
-------------	--	--	--	---

## YEAR ONE **Medical Assistant One-Year Certificate**

<b>FALL</b>	Medical Assistant Clinical Procedures *	English for Business OA 104, 4 Cr.	Office Skills for the Medical Office OA 126, 4 Cr.	Body Structure and Function I *
	MA 112, 3 Cr.			MA 120, 4 Cr.
<b>WINTER</b>	Medical Assistant Practicum I	Math for Applied Sciences **	Medical Assistant Clinical Procedures II *	Body Structure and Function II *
	MA 133, 4 Cr.	MTH 65, 4 Cr.	MA 113, 4 Cr.	MA 121, 4 Cr.
<b>SPRING</b>	English Composition -Exposition**	Pharmacology for Medical Assistants	Medical Assistant Practicum II	Psychology of Human Relations
	WR 121, 3 Cr.	MA 115, 3 Cr.	MA 231, 5 Cr.	PSY 101, 3 Cr.

**Legend Notes:**

\* Minimum grade of "C" or higher.

\*\* Minimum grade of "C", "P" or higher. May substitute MTH 95 or higher.

## Nursing Program Admission Requirements

Nursing program enrollment is limited. Acceptance into the Nursing program is determined by a weighted point system from a pool of qualified applicants. A student must meet the minimum requirements to be considered for admission. If the minimum requirements have been met the student's application will be evaluated and awarded points in a competitive process. The top ranking individuals will be offered admission to the program. Remaining qualified candidates are placed on a ranked alternate list which expires when fall term commences. A program information and application packet can be obtained from the Admissions Office or the College website.

The following minimum requirements must be met by the published deadline for an application to be evaluated. Please see this catalog for course descriptions.

A student must meet the following Minimum Evaluation Requirements:

**1. GPA REQUIREMENT: You must meet one of the following criteria.**

- A minimum of 24 college credits with a cumulative 3.0 GPA for all college credits earned.
- **OR** You may choose to use only those college credits you earned in the last 7 years if you have earned a minimum of 24 credits. All of those credits must have a cumulative GPA of 3.0.

**PLEASE Note: If you choose to use only those college credits that you have earned in the last 7 years, any nursing degree requirements completed more than 7 years ago will not be applied to your degree requirements. You must meet those requirements to graduate.**

**2. WRITING REQUIREMENT: You must meet one of the following criteria.**

- Completion of WR 121 English Composition-Exposition or higher completed with a grade of "C" or above.
- **OR** Demonstrated readiness for WR 121 by a minimum score of 45 on the ASSET Writing Placement Test or 77 on the COMPASS Writing Placement Test.

**3. READING REQUIREMENT: You must meet this requirement.**

- Minimum score of 42 on the ASSET Reading Placement Test or 81 on the COMPASS Reading Placement Test.

**THE FOLLOWING REQUIREMENTS MUST BE COMPLETED IN THE LAST 7 YEARS.**

**4. MATH REQUIREMENT: You must meet one of the following criteria.**

- MTH 95 Intermediate Algebra or MTH 111 College Algebra or a course for which MTH 111 is a prerequisite completed with a grade of "C" or above.
- **OR** Demonstrated readiness for MTH 111 College Algebra or higher demonstrated by a minimum score of 34 on the ASSET College Algebra Test or 36 on the COMPASS College Algebra Test.

**5. ANATOMY AND PHYSIOLOGY REQUIREMENT: You must meet this requirement.**

- Completion of BI 231 and BI 232 or the equivalent as determined by the Clatsop Community College Registrar's Office completed with a grade of "C" or above.

**PLEASE Note: If selected for the Nursing program, you must complete BI 233 or the equivalent as determined by the Clatsop Community College Registrar's Office with a grade of "C" or above before the start of the nursing program in the fall term. BI 233 may not be offered at Clatsop summer term.**

Once accepted into the program the student will need to pay a non-refundable deposit, pass a Criminal Background Check and meet other requirements for immunization, basic nursing skills and CPR training. These requirements can be found in the nursing application.

## Admission Requirements • Special Considerations

### Clinical rotations:

A student planning on entering the nursing program must be aware that clinical rotations may take place in Clatsop, Tillamook or Pacific Counties. These rotations may be on weekends, evenings or day shifts. Students are expected to have reliable transportation in order to attend required clinical rotations. Students are assigned to specific clinical sites based on a variety of factors including practice level, course curriculum goals, availability of experiences, faculty supervision and individual student needs. Each student's individual educational and practice needs are carefully considered when placements at the clinical sites are made.

### Online instruction:

Students need to be aware that the nursing program uses online instruction for selected courses, communication, assignments, testing and additional content delivery throughout the program. Students may use their own personal computers but support will only be provided by College personnel for issues directly related to the use of college email and BlackBoard (the course management system used by the college.) Use of college computers is highly encouraged and made available in computer labs housed throughout the campus as well as at the South County Campus in Seaside. Students should be aware of hours of operations for the labs provided by the College. This information is published on the College website.

### Re-entry or Advanced Placement Admission

Students applying for either re-entry or advanced placement must complete the appropriate application by the due date to be considered. A student may enter the nursing program after NUR 101 under one of two categories:

#### Re-entry

A student, who withdraws from the CCC Nursing program after NUR 101, has one opportunity to reenter. A student is eligible for re-entry if he/she:

- applies to the nursing program within the one year after the term he/she withdrew.
- has met the terms of his/her re-entry agreement.
- successfully completes any identified standardized tests.
- completes all degree program requirements up to point of re-entry.

Acceptance is contingent on availability of space.

#### Advanced Placement

A student is eligible for advanced placement if he/she has:

- completed all degree course requirements up to point of entry
- and*
- been out of the CCC nursing program for more than one year *or*
- been previously enrolled in a nursing program at another college

Students seeking admission into other terms of the nursing program may be required to take a standardized test. Point of entry will be determined by the nursing faculty based on evaluation of scores.

Acceptance is determined by a weighted point scale and contingent on availability of space.

Students will be required to take NUR 111, Nursing Concepts and Clinical Practice at variable credits – 1-3, prior to reentry/entry into the Nursing program.

## PRACTICAL NURSING FOUR-TERM CERTIFICATE ASSOCIATE OF APPLIED SCIENCE DEGREE

### LEARNING OUTCOMES: PRACTICAL NURSING CERTIFICATE

**Role Descriptions:** The Practical Nursing program is designed for the person intending to work as a practical nurse in the healthcare industry.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Qualify to take the NCLEX-PN licensure exam.
2. Provide safe and appropriate client care by:
  - a. Contributing to the nursing process under the supervision of an authorized health care provider: assessment • diagnosis • planning • implementation • evaluation
  - b. Acting as a collaborative member of a healthcare team.
  - c. Complying with the professional practice standards for a practical nurse.
3. Qualify to enter the second year of the Associate of Applied Science RN program at Clatsop Community College.

### Practical Nursing Job Description:

The licensed practical nurse (LPN) cares for patients under the direction of an RN, physician, or dentist. LPNs collect information about the patient's health, help plan care, and administer medications and other treatments. Practical nurses work primarily in hospitals and long-term care. They may also work in medical or dental offices, clinics, and caring for patients in the home.

### Employment Opportunities:

Employment opportunities for LPNs are fairly stable at this time, with some growth expected.

### Potential Earnings:

The average wage for LPNs is approximately \$16.50 per hour in Oregon.

### LEARNING OUTCOMES - NURSING: AAS DEGREE

**Role Descriptions:** The Nursing program is designed for the person intending to work as a registered nurse in the health care industry.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Demonstrate the ability to assess, diagnose, plan, implement, and evaluate nursing plans of care which address the holistic needs of diverse individuals, families, and groups.
2. Communicate effectively and collaboratively with clients, families, and members of the health care team.
3. Practice within the legal and ethical standards of nursing (as defined by the American Nurses Association and state boards of nursing) with a sense of personal and professional accountability and responsibility.
4. Demonstrate the ability to acquire and utilize new scientific knowledge and technology in the planning and delivery of nursing care.

### Nursing AAS Degree Job Description:

Registered nurses (RNs) are caring and use their knowledge, skills, and problem-solving to help individuals, families, and groups with health needs. RNs plan care and work with people to help them become healthier or to regain health after illness or surgery. Nurses teach health practices to clients and other health care providers, and frequently supervise the work of nursing assistants and practical nurses. RNs also administer medications and perform treatments for patients. Nurses work in a variety of settings, including hospitals and long-term care, schools, industry, clinics, and patients' homes. With advanced education, nurses may work as managers, educators, public health nurses, as a clinical specialist, or independently as a nurse practitioner.

### Employment Opportunities:

The need for registered nurses is critical at the present time, and is expected to increase.

### Potential Earnings:

The average wage in Oregon is approximately \$27.15 per hour or \$56,455 annually depending where the nurse works.



## YEAR ONE **Practical Nursing Four-Term Certificate • Minimum 53 Credits**

**FOUR-TERM CERTIFICATE:** This is not a stand alone program. Students enrolled in the AAS Degree Nursing may earn this certificate upon successful completion of the identified required courses below. Students are then eligible to take the NCLEX-PN test.

<b>FALL</b>	Introductory Microbiology BI 234, 4 Cr.	Nursing: Foundations of Care + NUR 101, 8 Cr.	Strategies for Success in Nursing Program NUR 115A, 1 Cr.	Foundations of Pharmacology for Nurses NUR 105, 1 Cr.	CS or MIC Elective 1 Cr.	Health or PE Elective* 1-3 Cr.	
	<b>WINTER</b>	Nursing: Focus on Individuals + NUR 102, 9 Cr.	Collaborative Practice I NUR 112, 2 Cr.	Physical Assessment I NUR 115B, 1 Cr.	Intro to Developmental Psychology PSY 215, 3 Cr.	<b>Math Requirement:</b> Either MTH 95, MTH 111, or a course for which MTH 111 is a prerequisite, must be successfully completed with a grade "C", "P" or higher. Math course to be taken during any term prior to entering the second year.	
		<b>SPRING</b>	Nursing: Focus on Families + NUR 103, 9 Cr.	Collaborative Practice II NUR 113, 1 Cr.	Physical Assessment II NUR 115C, 1 Cr.		English Composition -Exposition WR 121, 3 Cr.
			<b>SUMMER</b>	Nursing: Mental Health + NUR 109, 4 Cr.	Nursing Concepts & Clinical Practice # NUR 111, 1-3 Cr.		<b>Note:</b> All required courses must be completed with a "C" grade or higher to receive the certificate.

## YEAR TWO **Nursing AAS • Minimum 97 Credits**

<b>FALL</b>	Nursing: Clients in Crisis + NUR 201, 8 Cr.	Collaborative Practice III NUR 231, 2 Cr.	<b>Notes:</b> All first year program requirements must be completed with a "C" grade or higher to enter the second year of the program. All required courses must be completed with a "C" grade or higher to receive the degree.			
	<b>WINTER</b>	Nursing: Families in Crisis + NUR 202, 9 Cr.	Collaborative Practice IV NUR 232, 2 Cr.	Human Nutrition NFM 225, 4 Cr.		
		<b>SPRING</b>	Nursing: Transition to Practice + NUR 208, 8 Cr.	English Composition -Argument WR 122, 3 Cr. <i>or</i> English Composition -Research Writing WR 123, 3 Cr. <i>or</i> Technical Report Writing WR 227, 3 Cr.	Health or PE Elective * 1-3 Cr.	Social Science Elective ** 3 Cr.

**Legend Notes:**

- Note:** All nursing classes must be completed with a "C" grade or higher to continue in the program and progress to the next term.
- + Contains human relations components.
- \* Any of the following classes may be selected to fill the health or physical activity elective: PSY 190 Stress Theory & Management; HPE 295 Health & Fitness for Life; or PE 185 Physical Education.
- \*\* Selected from Social Science list on page 24.
- # NUR 111 required for selected advanced placement students only.
- \*\*\* Selected from Arts and Letters list on pages 23 and 24.

# TRUCK DRIVING

## PROFESSIONAL TRUCK DRIVING LESS-THAN-ONE-YEAR CERTIFICATE

### Job Description:

Professional truck driving training prepares the student to enter a wide variety of work within the transportation and logistics industry. While interstate truck operation is limited to those 21 or older, younger graduates have opportunities in associated jobs such as warehousing and local delivery.

### Employment Opportunities:

Employment in this field is expected to grow. Shortages of trained drivers are projected for the near future. Local opportunities exist in natural resource transportation and local delivery. Plentiful opportunities exist for over-the-road careers and with regional distribution companies based in the Willamette Valley. Experience as a professional truck driver can be a pathway, after further education, to careers as dispatcher, manager of logistics operations, and as an owner of a transportation-based enterprise.

### Potential Earnings:

An average entry level wage for Truck Drivers, Heavy and Tractor-Trailer is currently \$12.13 per hour, depending on experience; maximum may go to \$23.34 or more per hour with an average wage of \$16.49 per hour.

### LEARNING OUTCOMES: PROFESSIONAL TRUCK DRIVING: LESS-THAN-ONE-YEAR CERTIFICATE

**Role Description:** Professional truck driving training prepares the student to enter a wide variety of work within the transportation and logistics industry, including associated jobs such as warehousing and local delivery.

**Intended Learning Outcomes:** Students graduating from the Professional Truck Driving Less-Than-One-Year Certificate will:

1. Know rules and regulations pertaining to operation of commercial trucks.
2. Demonstrate safe and legal operation of commercial trucks and handling of cargo
3. Demonstrate and practice the customer service skills needed for success in the logistics industry
4. Demonstrate and practice maintenance of documentation required of a commercial truck driver
5. Master the skills particular to at least one segment of the truck transportation industry

Course Number	Course Title	Credits	Total Hours	
TTL 101	Introduction to Transportation and Logistics	4	40	
TTL 121	Practical Applications in Transportation and Logistics	6	120	Individual Instruction
TTL 141	Transportation Customer Service Skills	3	30	
TTL 180	Transportation Cooperative Work Experience	6	200	Individual Instruction
<b>Total:</b>		19	390	

Courses in the program are on a condensed schedule requiring full-time commitment, 40 hours per week.

## AMERICAN WELDING SOCIETY ENTRY LEVEL WELDING ONE-YEAR CERTIFICATE PROGRAM

### Job Description:

This competency based program will provide an individual with the prerequisite knowledge, skills, work habits and attitude required to perform routine, predictable, proceduralized tasks as defined by the American Welding Society. These entry-level welding tasks involve motor skills and limited theoretical knowledge and are performed under close supervision. Course curriculum follows the AWS specifications for qualification and certification of QC10-95 entry level welder. This program is one step on the ladder of skills the trainees may achieve in their quest for a rewarding career. People who are creative and enjoy mind-hand challenges will find opportunities for advancement and experience a great sense of pride in workmanship as they ply their trade.

### Employment Opportunities:

The job outlook for welding is good regionally, nationally and globally. Entry level welders are employed in a wide range of industries that use welding and welding-related tasks during daily operations.

### Potential Earnings:

State employment data shows that the entry-level wage for Oregon Statewide is \$11.81 with an average wage of \$17.71 (annual average of \$36,829) and the top salary range being \$24.38. National median hourly wages is \$17.04 with wages ranging from \$11.51 to \$25.82 per hour.

### Program Requirements:

Program Requirements: The department recommends that students enter the program at the beginning of a scheduled term, based on space availability. Some classes may not be offered every term. Acceptance into the program is based on COMPASS placement test scores that demonstrate proficiency of basic math and high school level reading/writing skills. Because a variety of working conditions exist in the welding field, a person generally should be in good physical condition and be able to stand, stoop, kneel and bend. Good eyesight, especially depth perception, is necessary for a welder.

### LEARNING OUTCOMES: WELDING (AMERICAN WELDING SOCIETY ENTRY LEVEL): ONE-YEAR CERTIFICATE

**Role Descriptions:** The Welding Program is designed for the person intending to work as an entry-level welder in a welding shop.

**Intended Learning Outcomes:** Learning experiences in this program are designed to assist the student in realizing the following outcomes:

1. Weld metals proficiently using five different processes:
  - a. Material processing (oxy-fuel welding and cutting, plasma, carbon air arc)
  - b. Oxy-fuel (welding and cutting)
  - c. Shielded metal arc welding
  - d. Gas metal arc welding
  - e. Gas tungsten welding.
2. Follow safe practices in performing all welding tasks.
3. Interpret written, schematic and numerical data to carry out customer specifications of a proposed welding product; write technical work orders for fabrication.
4. Use standard industrial equipment to make quality repairs and fabrication on different types of metals.
5. Generate creative solutions to fabrication challenges.
6. Share in the responsibilities of maintaining a clean and orderly welding shop environment.
7. Use, maintain, and repair fabrication/welding shop tools.
8. Perform the business functions of customer service and materials acquisition.
9. Progressively assume greater shop responsibilities and envision future work opportunities in the trades.
10. Manage a student portfolio to include skills students have learned.

# YEAR ONE

## Career Pathway Certificate

FALL	Industrial Safety*** IT 140, 1 Cr.	Tool & Shop Basics IT 141, 1 Cr.	Materials Processing WLD 100, 2 Cr.	Shielded Metal Arc Welding Process WLD 101, 3 Cr.	Gas Metal Arc Welding Process WLD 102, 3 Cr.	Flux Core Arc Welding Process WLD 103, 3 Cr.
	WINTER					
	Gas Tungsten Arc Welding Process WLD 104, 3 Cr.					

# YEAR ONE

## AWS Entry Level Welding One-Year Certificate

FALL	Industrial Safety *** IT 140, 1 Cr.	Tool & Shop Basics IT 141, 1 Cr.	Technical Print Interpretation DRF 139, 3 Cr.	Math for Applied Science* MTH 65, 4 Cr. <i>or</i> Intermediate Algebra* MTH 95, 4 Cr.	Materials Processing WLD 100, 3 Cr.	Shielded Metal Arc Welding Process WLD 101, 8 Cr.
	WINTER					
	Gas Metal Arc Welding Process WLD 102, 7 Cr.	Flux Core Arc Welding Process WLD 103, 6 Cr.	English Composition -Exposition** WR 121, 3 Cr.			
SPRING	Psychology of Human Relations PSY 101, 3 Cr.	Gas Tungsten Arc Welding Process WLD 104, 6 Cr.	Cooperative Work Experience IT 280, 2 Cr.	Cooperative Work Experience Seminar IT 281, 1 Cr.		

### Legend Notes:

\* Minimum grade "C", "P" or higher. Math courses numbered higher than MTH 95 may be substituted.

\*\* Minimum grade "C" or higher.

\*\*\* IT 140 uses CD-ROM training modules. Satisfactory completion of this class is required before taking classes in any of the shop facilities.

**Notes:** The program addresses the application of technical writing skill as the trainee delivers written quality control reports for each welding process workmanship sampling. Students demonstrate practical math applications throughout the program, especially in the workmanship assessment projects.

Upon completion the trainees will receive a Certificate of Completion from AWS qualifying them as a nationally recognized entry level welder. They will also be registered in the AWS databank for certificate verification purposes.

The Oregon Transfer Module represents approximately half (45 credits) of an associate degree or the first year of a baccalaureate degree. Although students do not earn a degree or certificate, any student successfully completing an OTM (which conforms to the guidelines below) will be able to seamlessly transfer their first year of general education requirements to any Oregon community college, Oregon University System institution or participating Oregon independent college or university. It is the student's responsibility to confer with the school to which they intend to transfer. The receiving institution may specify additional course work that is required for a major or for degree requirements or to make up the difference between the Transfer Module and the institution's total General Education requirements.

**GUIDELINES:** The Oregon Transfer Module includes the following course work, which is equivalent to 3 academic quarters. The coursework must be chosen from the courses approved for the categories below. These will be courses approved for the AA/OT degree. All courses must be passed with a grade of "C" or better and must be worth at least 3 credits.

## Foundational Skills:

- Writing:** Students taking writing classes of three credits each must complete WR 121 and WR 122.
- Oral Communication:** Students must complete one course in the fundamentals of speech or communication. This course cannot be used to meet the Arts & Letters discipline requirement.
- Mathematics:** Students must complete one course in college-level mathematics, for which MTH 095 Intermediate Algebra is a prerequisite. This course cannot be used to meet the Math/Science requirement.

## Discipline Requirements

**Arts & Letters:** Students must complete three courses chosen from two or more disciplines. The second year of a foreign language, but not the first year, may be included among courses that count toward the Arts and Letters requirement.

ARCH 215 ..... History Pacific NW Architecture.....3	ENG 253,254,255 .Survey of American Literature .....3 ea
ART 115,116,117 ... Basic Design I, II, III.....3 ea	ENG 263 ..... Autism in Literature .....3
ART 204,205,206 .. History of Western Art I, II, III.....3 ea	FR 201,202,203..... Second Year French .....4 ea
ASL 201 ..... Amer Sign Language-Conv Skills.....3	HUM 101,102,103 . Introduction to Humanities.....3 ea
ENG 104 ..... Intro to Literature-Fiction.....3	MUS 105 ..... Music Appreciation .....3
ENG 105 ..... Intro to Literature-Drama .....3	PHL 101 ..... Philosophical Problems .....3
ENG 106 ..... Intro to Literature-Poetry.....3	PHL 102 ..... Ethics .....3
ENG 107 ..... World Lit.-The Ancient World.....3	PHL 103 ..... Critical Reasoning .....3
ENG 108 ..... World Lit.-Medieval/Renaissance .....3	R 201,202,203 ..... Great Religions of the World.....3 ea
ENG 109 ..... World Lit.-Africa/Asia/Latin Am .....3	SP 111 ..... Fundamentals of Public Speaking .....3
ENG 110 ..... Introduction to Film Studies.....3	SP 112 ..... Persuasive Speech .....3
ENG 180 ..... Gothic Literature .....3	SP 115 ..... Intro. to Intercultural Communication...3
ENG 201,202,203 .. Shakespeare I, II, III .....3 ea	SP 130 ..... Business & Professional Speaking .....3
ENG 204 ..... English Literature-Medieval.....3	SP 219 ..... Small Group Discussion .....3
ENG 205 ..... English Literature-Renaissance .....3	SPAN 201,202,203. Second Year Spanish .....4 ea
ENG 206 ..... English Literature-Victorian/Modern .....3	WR 227 ..... Technical Report Writing.....3
ENG 220 ..... Non-European Minority Literature.....3	WR 240 ..... Creative Writing-Nonfiction.....3
ENG 221 ..... Intro to Children's Literature.....3	WR 242 ..... Creative Writing-Poetry.....3
	WR 249 ..... Writing Children's Books.....3

**Social Science:** Students must complete three courses chosen from two or more disciplines.

ANT 101 ..... Intro: Biological Anthropology .....3	HST 201,202,203 History of the United States .....3 ea
ANT 102 ..... Intro: Archaeology and Prehistory .....3	HST 218 ..... Native American History.....3
ANT 103 ..... Intro: Cultural Anthropology.....3	HST 245 ..... Lewis/Clark Course of Discovery .....3
CJ 107 ..... Criminal Justice Workshop .....3	HST 277 ..... History of the Oregon Trail.....3
CJ 110 ..... Introduction to Law Enforcement .....3	PHL 208 ..... Political Philosophy .....3
CJ 111..... Introduction to Criminal Justice.....3	PS 201, 202 ..... American Government.....3 ea
CJ 114 ..... Gender, Race, Class & Crime .....3	PS 203 ..... State and Local Government.....3
CJ 120 ..... Introduction to the Judicial Process .....3	PS 205 ..... International Politics .....3
CJ 138 ..... Understanding Terrorism.....3	PSY 101 ..... Psychology of Human Relations.....3
CJ 243 ..... Alcohol & Other Dangerous Drugs.....3	PSY 201,202,203 General Psychology .....3 ea
EC 201,202 ..... Principles of Economics.....4 ea	PSY 215 ..... Intro. to Developmental Psychology .....3
ECE 262 ..... Teaching in Anti-Bias Classroom.....3	SOC 204 ..... General Sociology: Introduction .....3
GEO 100 ..... Physical Geography .....3	SOC 205..... General Sociology: Social Issues .....3
GEO 110 ..... Cultural and Human Geography .....3	SOC 221 ..... Juvenile Delinquency .....3
GEO 120 ..... World & Regional Geography.....3	SOC 225..... General Sociology: Global Issues .....3
GEO 130 ..... Economic & Resource Geography.....3	WS 201..... Introduction to Women's Studies .....3
HFS 226 ..... Growing Years.....3	WS 210..... Cultural Perspective of Women of Color....3
HST 101,102,103 History of Western Civilization.....3 ea	WS 221..... Women, Difference & Discrimination .....3
HST 104,105,106 World History I, II, III.....4 ea	WS 230..... Women and Social Action.....3

# Oregon Transfer Module (OTM)

**Science/Mathematics:** Students must complete two courses totaling at least ten credits, including at least one laboratory course in biological or physical science.

*BI 101,102,103... General Biology .....	4 ea	*GS 104 .....	Physical Science-Physics .....	4
*BI 112..... Cell Biology/Allied Health Occupations.....	4	*GS 106 .....	Physical Science-Geology.....	4
*BI 143..... Marine Biology .....	4	*GS 109 .....	Physical Science-Meteorology.....	4
*BI 211,212,213... Principles of Biology I, II, III.....	4 ea	*GS 112.....	Chemistry & Cell Biology.....	5
BI 222..... Human Genetics .....	3	GS 161 .....	Field Biology of Oregon .....	3
*BI 231,232,233... Human Anat. and Physiology I, II, III .....	4 ea	MTH 103.....	Applied College Algebra.....	4
*BI 234..... Introductory Microbiology .....	4	MTH 105.....	Intro. to Contemporary Mathematics .....	4
*BOT 101..... Botany .....	4	MTH 111.....	College Algebra.....	4
*CH 104,105..... Introductory Chemistry I, II .....	4 ea	MTH 112.....	Elementary Functions (Trigonometry).....	4
*CH 106..... Introductory Chemistry-Biochemistry .....	4	MTH 116.....	Pre-Calculus .....	4
*CH 120..... Chemistry in Art.....	4	MTH 211,212,213	Fundamentals of Elementary Math. I,II,III .	3 ea
*CH 221,222,223 . General Chemistry.....	5 ea	MTH 243,244.....	Intro. to Probability and Statistics.....	4 ea
*ES 160..... Techniques in Environmental Information Analysis.....	4	MTH 251.....	Calculus I.....	5
*ES 202..... Applied Environ Studies: Prep for Problem Solving.....	4	MTH 252,253.....	Calculus II,III .....	4 ea
		*PH 201,202,203 .	General Physics .....	5 ea
		*PH 211,212,213..	General Physics with Calculus .....	5 ea

\*courses which meet the lab science requirement

## Electives:

As required to bring the total credits to 45. Courses must be from the areas listed above (Arts and Letters, Social Science, or Science/Math).

## Institutional Requirements:

Earn a "C" grade or better on all Clatsop Community College coursework.

Have earned a "C" grade or better on all coursework transferred from other institutions that is to be included in a Clatsop Community College OTM, degree or certificate.

You may apply a maximum of 12 credits of "pass" grades toward the OTM. However, Foundational Skills courses must be taken for a grade.

Complete at least 12 credits at Clatsop Community College.

Courses that meet the Cultural Literacy requirement are noted with a “♦” symbol.

## ANTHROPOLOGY

### ANT 101 INTRODUCTION TO BIOLOGICAL ANTHROPOLOGY (3.00 Lecture Hrs./Wk.) **3 Credits**

Students acquire basic knowledge of the processes of human evolution and variation. Primate and hominin evolution are surveyed. Students explore subjects relevant to human evolution such as Mendelian and population genetics, primatology, paleoarchaeology, and biological diversity in modern human populations. Special attention is given to the origins of cultural behavior in primates and culture's increasing flexibility and diversity as the Hominine line evolves.

### ♦ ANT 102 INTRODUCTION TO ARCHAEOLOGY AND PREHISTORY (3.00 Lecture Hrs./Wk.) **3 Credits**

Students demonstrate knowledge of archaeological methods and theories including techniques used in gathering and interpreting data on past cultures, preservation of archaeological data, and dating techniques. The fundamentals of archaeology are taught within the context of a survey of prehistory from the Upper Paleolithic to the earliest state-level societies in Southwestern Asia, Africa, and Europe. Human culture is analyzed as an adaptive system that varies in relation to ecology and human need.

### ♦ ANT 103 INTRODUCTION TO CULTURAL ANTHROPOLOGY (3.00 Lecture Hrs./Wk.) **3 Credits**

Students develop a basic understanding of the variety of cultures in the world, the sources of information used by cultural anthropologists, and an overview of ecological, functional and symbolic paradigms for understanding culture. Students examine the basic concepts of ethnocentrism, holism and cultural relativism, and learn about culture as a symbolic, dynamic, integrated, adaptive system of complex relationships.

## ARCHITECTURE

### ARCH 215 HISTORY OF PACIFIC NORTHWEST ARCHITECTURE (3.00 Lecture Hrs./Wk.) **3 Credits**

Students study Pacific Northwest regional building types, stylistic characteristics and architects. Students will explore the influence of political, social, environmental and economic impacts on architecture.

## ART

### ART 115 BASIC DESIGN I (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students complete two-dimensional projects exploring the basic elements and principles of design, gain a basic knowledge of the concepts underlying fundamental composition and formal theory in the visual arts, and develop vocabulary for work and criticism. This is a foundation course for most professions in the visual arts, including architecture, interior architecture, graphic design, landscape design, and all commercial applications.

### ART 116 BASIC DESIGN II (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students complete studio exercises exploring the basic elements and principles of three-dimensional design and continue to master the concepts underlying fundamental composition and formal theory in the visual arts. Students gain a fundamental understanding of vocabulary, function and applications of three-dimensional design concepts, and learn the processes of visual thinking and creative problem solving.

### ART 117 BASIC DESIGN III (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students complete two- and three-dimensional projects demonstrating an understanding of the creative process within the context of the art movements of the 20th Century. Students learn how to independently make use of creative thought processes and visual problem solving.

### ART 131 INTRODUCTION TO DRAWING I (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students are introduced to the basic techniques and approaches to drawing with an emphasis on the development of perceptual skills and observational study. Assigned creative projects explore a variety of media, subject matter, and conceptual problems inspired by historical and contemporary artistic practice. Intro to Drawing series 131, 132, 133 may be taken in any sequence.

### ART 132 INTRODUCTION TO DRAWING II (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**

Students are introduced to the basic techniques and approaches to drawing the human figure with an emphasis on the development of perceptual skills and observational study. Assigned creative projects explore a variety of media with a focus on proportion, foreshortening, anatomy, and the application of techniques inspired by historical and contemporary artistic practice. Intro to Drawing series 131, 132, 133 may be taken in any sequence.

**ART 133****INTRODUCTION TO DRAWING III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students are introduced to the basic techniques and approaches to drawing with an emphasis on the development of meaningful content and personal expression. Assigned creative projects are inspired by historical and contemporary artistic practice, and explore a variety of media, as well as thematic development and organization of the picture plane. Intro to Drawing series 131, 132, 133 may be taken in any sequence.

**ART 161****INTRODUCTION TO PHOTOGRAPHY I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn the fundamentals of operating cameras and producing prints, using both traditional photochemical and contemporary digital technologies. They learn the basics of composition, editing, and expressive use of studio and natural lighting. They study the breadth of contemporary and historical photography and its role in our society. Students cultivate creative processes and study critiquing. Students produce a photo essay on a coherent theme. This class begins the foundations for doing fine arts, professional/commercial, and personal photography. **Prerequisite:** ART 115 recommended.

**ART 162****INTRODUCTION TO PHOTOGRAPHY II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Building from the fundamentals of ART 161, students learn to do effective camera work in a wider variety of conditions and to be able to make custom quality prints, working in their choice of digital black-and-white or color, or traditional darkroom prints. They learn standard studio lighting. Students produce a photo essay. They study the breadth of contemporary and historical photography and its role in our society. Students cultivate creative processes and study critiquing. This class builds the foundations for doing fine arts, professional/commercial, and personal photography. **Prerequisite:** ART 161.

**ART 163****INTRODUCTION TO PHOTOGRAPHY III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Building from the skills of ART 162, students complete learning the use of the full range of camera controls and lenses in a variety of situations. They learn more sophisticated techniques of lighting, digital file capture and processing, and, for those interested, fine arts archival printing in the traditional darkroom. Students undertake an assignment for a publication story or an themed exhibit, and complete it as a digital publication. Digital files and prints are prepared for exhibit or publication. They study the breadth of contemporary and historical photography and its role in our society. Students cultivate creative processes and study critiquing. This class strengthens the foundations for doing fine arts, professional/commercial, and personal photography. **Prerequisite:** ART 162.

**ART 194****INTRODUCTION TO WATERCOLOR I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn the techniques and use of watercolor with special attention to its characteristics as a painting medium. Recommended basic transfer course for landscape architecture and, in most cases provides transfer credit toward studio art elective requirements.

**ART 195****INTRODUCTION TO WATERCOLOR II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students improve their technique and use of watercolor with special attention to its characteristics as a painting medium. Recommended basic course for landscape architecture and, in most cases, provides transfer credit toward studio art elective requirements.

**ART 196****INTRODUCTION TO WATERCOLOR III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students develop the techniques and use of transparent watercolor for rendering still life, portraiture and landscape. Recommend basic course for landscape architecture and, in most cases, provides transfer credit toward studio art electives requirement.

**ART 204****HISTORY OF WESTERN ART I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to appreciate and enjoy art, explore Western styles, and relate specific works of art to each other and the ideas that animated the life of their times. This course provides an historical survey of the visual arts in the Western world from the Egyptian through the Romanesque periods.

**ART 205****HISTORY OF WESTERN ART II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to appreciate and enjoy art, explore Western styles, and relate specific works of art to each other and the ideas that animated the life of their times. This course provides a historical survey of the visual arts in the Western world from the Gothic to the Baroque periods.

**ART 206****HISTORY OF WESTERN ART III****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students have the opportunity to appreciate and enjoy art, explore Western styles, and relate specific works of art to each other and the ideas that animated the life of their times. This course provides a historical survey of the visual arts in the Western world from the Rococo period through the 20th Century.



**ART 222****ART PUBLICATION LAYOUT****(1.00 Lecture Hr./Wk.)****1 Credit**

Students learn fundamental skills and techniques to design and layout publications. Students create a multi-page document, use master pages, layout guides and style sheets, format digital images and prepare publications for press. **Co-requisite:** WR 270.

**ART 225****COMPUTER GRAPHICS I****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students are introduced to the theory and use of digital media in the design process. Students use a variety of tools and techniques for visual communication including typography, page layout, digital imaging and three-dimensional modeling. Design principles and concepts, creative use of media and critical analysis of work are emphasized.

**ART 226****COMPUTER GRAPHICS II****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop the use of tools and techniques of computer graphics in the design process. Students engage more advanced aspects of composition, digital imaging, three-dimensional modeling, rendering and animation. Creative problem solving, concept development, design applications and communication issues are explored. **Prerequisite:** ART 225.

**ART 228****PORTFOLIO DEVELOPMENT****(2.00 Lecture/Lab Hrs./Wk.)****1 Credit**

Introduction to design and creation of an artist's portfolio. Students will organize, document and describe a body of their work and create and present a high quality portfolio.

**ART 231****DRAWING – INTERMEDIATE I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Studio course with an emphasis on the development of concepts and techniques of drawing with increasing sophistication. Students build a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. **Prerequisite:** ART 133 or instructor approval. Intermediate Drawing series 231, 232, 233 may be taken in any sequence.

**ART 232****DRAWING – INTERMEDIATE II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students further deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Studio course with an emphasis on the development of concepts and techniques of figure drawing with increasing skill and sophistication. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. **Prerequisite:** ART 133. Intermediate Drawing series 231, 232, 233 may be taken in any sequence.

**ART 233****DRAWING – INTERMEDIATE III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Studio course with an emphasis on the development of concepts and techniques of drawing with increasing sophistication. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. **Prerequisite:** ART 133 or instructor approval. Intermediate Drawing series 231, 232, 233 may be taken in any sequence.

**ART 250****INTRODUCTION TO CERAMICS I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will develop basic skills in ceramics including clay preparation, throwing on the wheel, hand-building, and glaze application.

**ART 251****INTRODUCTION TO CERAMICS II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will develop basic skills in ceramics including clay preparation, throwing, hand building, glaze application, mixing and applying engobes, stains, and slips.

**ART 252****INTRODUCTION TO CERAMICS III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will develop basic skills in ceramics including clay preparation, throwing, hand building, glaze application, mixing and applying engobes, stains, and slips. The student will develop skill in the use of various methods of surface treatments on clay forms, such as stamping, sgraffito, carving, distortion of form, and clay additions.

**ART 253****CERAMICS – INTERMEDIATE I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will have the opportunity to further develop the techniques learned in Introduction to Ceramics and will research clay bodies and glazes. The student will understand kiln building, firing methods and advanced techniques in hand-building, throwing, and surface decoration. **Prerequisite:** ART 250, 251 or 252, or instructor approval.

**ART 253A****ATMOSPHERIC FIRING (CERAMICS)****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Experienced ceramics students will explore the results of firing clay using atmospheric firing processes such as Wood, Raku, and Sager firing. **Prerequisite:** ART 251, 252 or 253, or instructor approval.

**ART 254****CERAMICS – INTERMEDIATE II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will apply the techniques learned in Introduction to Ceramics and develop skill in researching clay bodies and glazes. The student will understand kiln building, firing methods and advanced techniques in hand-building, throwing, and surface decoration. **Prerequisite:** ART 250, 251 or 252, or instructor approval.

**ART 255****CERAMICS – INTERMEDIATE III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

The student will further develop the techniques learned in Introduction to Ceramics and will research clay bodies and glazes. The student will understand kiln building, firing methods and advanced techniques in hand-building, throwing, and surface decoration. **Prerequisite:** ART 250, 251 or 252, or instructor approval.

**ART 270****INTRODUCTION TO PRINTMAKING I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn techniques for woodcut, monoprint and etching. This is the first course in a year-long sequence recommended for students preparing for architecture, interior architecture, and graphic design programs. Students may work in the media introduced this term or any media they have studied in a previous course. **Prerequisite:** None, but drawing and design classes are recommended.

**ART 271****INTRODUCTION TO PRINTMAKING II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the techniques of making original fine art prints acquired through lectures, studio projects, and individual applications. Students may work in the media introduced this term and/or any media they have studied in a previous course. **Prerequisite:** None, but drawing and design classes are recommended.

**ART 272****INTRODUCTION TO PRINTMAKING III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the techniques of making original fine art prints acquired through lectures, studio projects, and individual applications. Students may work in the media introduced this term and/or any media they have studied in a previous course. **Prerequisite:** None, but drawing and design classes are recommended.

**ART 273****PRINTMAKING – INTERMEDIATE I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop skill in printmaking applying the techniques learned in introductory printmaking classes. Students complete independent work that contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval.

**ART 274****PRINTMAKING – INTERMEDIATE II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop skill in printmaking applying the techniques learned in introductory printmaking classes. Students complete independent work that contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval.

**ART 275****PRINTMAKING – INTERMEDIATE III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students continue to develop skill in printmaking applying the techniques learned in introductory printmaking classes. Students complete independent work that contributes to their personal portfolio. **Prerequisites:** ART 270, 271 & 272 or instructor approval.

**ART 276****INTRODUCTION TO SCULPTURE I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Student develop skill in basic portrait study emphasizing construction of facial features and form, and finishing sculptural processes.

**ART 277****INTRODUCTION TO SCULPTURE II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students develop skill in techniques of sculpture involving basic figure study emphasizing construction of human features.

**ART 278****INTRODUCTION TO SCULPTURE III****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students develop skill in techniques of soapstone carving emphasizing form, carving techniques, and finishing sculptural processes.

**ART 279**  
**INTRO TO MIXED MEDIA AND HYBRID FORMS:**  
**MULTIDISCIPLINARY**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students develop skill in theory, methods, and compositional problems of creating art with mixed media. **Prerequisite:** ART 115, or instructor approval.

**ART 281**  
**INTRODUCTION TO PAINTING I**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students are introduced to the basic techniques and approaches to oil and/or acrylic painting, with an emphasis on working directly from life/direct observation (still life, landscape, and the human figure). Assigned creative projects explore the interrelationships between painting materials, techniques, formal elements and principles, and cognitive meaning inspired by historical and contemporary artistic practice. **Prerequisite:** None, but drawing and design classes are strongly recommended.

**ART 282**  
**INTRODUCTION TO PAINTING II**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students continue to develop techniques and approaches to oil and/or acrylic painting investigating a range of subject matter including still life, landscape, the human figure, and abstraction. Assigned creative projects explore the interrelationships between painting materials, techniques, formal elements and principles, and cognitive meaning inspired by historical and contemporary artistic practice. **Prerequisite:** None, but drawing and design classes are strongly recommended. Intro to Painting series 281, 282, 283 may be taken in any sequence.

**ART 283**  
**INTRODUCTION TO PAINTING III**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students continue to develop techniques and approaches to oil and/or acrylic painting in which students investigate meaning/content and the possibility of developing a personal style. Assigned creative projects explore the interrelationships between painting materials, techniques, formal elements and principles, and cognitive meaning inspired by historical and contemporary artistic practice. **Prerequisite:** None, but drawing and design classes are strongly recommended. Intro to Painting series 281, 282, 283 may be taken in any sequence.

**ART 284**  
**PAINTING – INTERMEDIATE I**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. Studio course with an emphasis on the development of concepts and techniques of painting with increasing sophistication. **Prerequisite:** ART 283 or instructor approval. Intermediate Painting series 284, 285, 286 may be taken in any sequence.

**ART 285**  
**PAINTING – INTERMEDIATE II**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students continue to deepen understanding of the creative process through the study of historical and contemporary art in addition to studio practice. Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. Studio course with an emphasis on the development of concepts and techniques of painting with increasing sophistication. **Prerequisite:** ART 283 or instructor approval. Intermediate Painting series 284, 285, 286 may be taken in any sequence.

**ART 286**  
**PAINTING – INTERMEDIATE III**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students continue building a personal portfolio that reveals the beginning of an internal search for meaning/content, personal style, and individual expression. Studio course with an emphasis on the development of concepts and techniques of painting with increasing sophistication. **Prerequisite:** ART 283 or instructor approval. Intermediate Painting series 284, 285, 286 may be taken in any sequence.

**ART 291**  
**SCULPTURE – INTERMEDIATE I**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Student will develop skill in basic portrait study emphasizing construction of facial features and form, and finishing sculptural processes. **Prerequisite:** ART 276, 277, or 278, or instructor approval.

**ART 292**  
**SCULPTURE – INTERMEDIATE II**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students continue to develop skill in techniques of sculpture involving basic figure study emphasizing construction of human features. **Prerequisite:** ART 276, 277 or 278, or instructor approval.

## ART • ASL • AUTO

### ART 293

#### SCULPTURE - INTERMEDIATE III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students continue to develop skill in techniques of soapstone carving emphasizing form, carving techniques, and finishing sculptural processes. Students will apply techniques introduced in introductory sculpture-stone carving. **Prerequisite:** ART 276, 277 or 278, or instructor approval.

### ART 294

#### WATERCOLOR – INTERMEDIATE I

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students complete projects that apply their knowledge of watercolor painting techniques, concepts, and theories of expression. Students complete independent work that contributes to their personal portfolio. **Prerequisite:** ART 194, 195, 196 or instructor approval.

### ART 295

#### WATERCOLOR – INTERMEDIATE II

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students complete watercolor paintings that demonstrate individual variations of technique. Students complete independent work that contributes to their personal portfolio. **Prerequisite:** ART 194, 195, 196 or instructor approval.

### ART 296

#### WATERCOLOR – INTERMEDIATE III

(6.00 Lecture/Lab Hrs./Wk.)

3 Credits

Students complete watercolor paintings, which demonstrate skill in composition and incorporate theories of expression. Students complete independent work that contributes to their personal portfolio. **Prerequisite:** ART 194, 195, 196 or instructor approval.

## ASL AMERICAN SIGN LANGUAGE

### ASL 101

#### AMERICAN SIGN LANGUAGE I

(3.00 Lecture Hrs./Wk.)

3 Credits

Students learn basic ASL vocabulary, grammatical structures and conversational behaviors. Students are introduced to cultural values, beliefs, and behavioral norms shared by those within the deaf community. This course focuses in the language widely used by deaf Americans.

### ASL 102

#### AMERICAN SIGN LANGUAGE II

(3.00 Lecture Hrs./Wk.)

3 Credits

Students improve their skills in vocabulary, grammatical structures and conversational behavior. Special focus will be given to developing more awareness of the cultural values and beliefs shared by the deaf community. **Prerequisite:** ASL 101 or instructor approval.

### ASL 103

#### AMERICAN SIGN LANGUAGE III

(3.00 Lecture Hrs./Wk.)

3 Credits

Students continue to increase their skills in vocabulary, grammatical structures and in-depth cultural awareness. Cultural information centers upon the ways in which hearing people can work with deaf people to establish culturally appropriate relationships. **Prerequisite:** ASL 102 or instructor approval.

### ASL 201

#### AMERICAN SIGN LANGUAGE-CONVERSATIONAL SKILLS

(3.00 Lecture Hrs./Wk.)

3 Credits

Students improve and maintain their conversational ASL skills. Students will learn additional sign vocabulary, grammar concepts, and further develop conversational skills. In addition, ASL idiomatic signs will be presented. Students may also work on projects such as poems, songs, and choral works. **Prerequisite:** ASL 103 or instructor approval.

## AUTO AUTOMOTIVE TECHNOLOGY

*Other Automotive courses listed under Industrial and Manufacturing Technology (IT)*

### AUTO 101

#### INTRODUCTION TO AUTOMOTIVE TECHNOLOGY

(80.00 Lecture/Lab Hrs. Total)

4 Credits

Students learn how to operate general shop equipment and tools; identify and respond to safety hazards; gather automotive service information effectively; and perform basic entry level tasks and repairs. **Prerequisite:** IT 140.

### AUTO 108

#### ENGINE FUNDAMENTALS AND REPAIR

(80.00 Lecture/Lab Hrs. Total)

4 Credits

Students learn the operational theory, types and designs, and internal details of automotive internal combustion engines. Hands-on disassembly, measurement, evaluation, and proper reassembly will be stressed. **Prerequisite:** AUTO 101.

### AUTO 120

#### STEERING AND SUSPENSION I

(80.00 Lecture/Lab Hrs. Total)

4 Credits

Students learn the basic components, design, and operation of steering and suspension systems. Tires, wheels, shocks, struts, springs, steering gears and linkages, frame designs, and other components are covered. Many common shop tasks will be utilized and performed. **Prerequisite:** AUTO 101.

**AUTO 125**  
**ELECTRICAL/ELECTRONICS I**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Students learn the foundations of automotive electrical/electronic system operation, components, tools, circuit types and theory. Batteries, starting systems, and vehicle electrical base distribution will be emphasized in hands-on tasks and classroom exercises. **Prerequisite:** AUTO 101.

**AUTO 130**  
**BRAKE SYSTEMS I**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Students learn the design, components, operation, and service of modern automotive brake systems. Common brake shop tasks and service procedures are utilized throughout the course of instruction. **Prerequisite:** AUTO 101.

**AUTO 135**  
**ELECTRICAL/ELECTRONICS II**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Building on the concepts from Electrical/Electronics I, the student will move into operation and diagnosis of vehicle charging systems, lighting systems, power windows and locks, heated accessories, and HVAC controls. Proper R&R and care of trim is addressed. **Prerequisite:** AUTO 125.

**AUTO 210**  
**ADVANCED STEERING, SUSPENSION, AND BRAKES**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Building on the fundamentals of Brake Systems I and Steering and Suspension I, students learn diagnosis of steering, suspension, and brake problems, ABS (anti-lock brake) systems and service, and wheel alignment procedures. **Prerequisite:** AUTO 120 and 130.

**AUTO 215**  
**ELECTRICAL/ELECTRONICS III**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 In the last of the series on Electrical/Electronics, students will learn by applying their diagnostic skills to instrumentation systems, cruise control, SRS/air bag systems, body electrical systems, and engine ignition systems. **Prerequisite:** AUTO 135.

**AUTO 224**  
**ENGINE PERFORMANCE I**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Students learn the basic functions and operations of electronic fuel control and emissions components and systems. Initial testing and observation of systems operation using scan tools and other diagnostic equipment will be stressed. **Prerequisites:** AUTO 125 and completion of, or concurrent enrollment in, AUTO 229.

**AUTO 229**  
**ENGINE DIAGNOSIS AND SERVICE**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Students gain competence and demonstrate knowledge of engine problem diagnosis as it relates to lubrication, cooling and internal mechanical systems. Research (service information), testing and problem solving will be stressed. **Prerequisite:** AUTO 108.

**AUTO 230**  
**AUTOMOTIVE HVAC**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Students learn the basic components, operation, diagnosis, and repair of vehicle A/C-heater (HVAC) systems. Basic A/C theory, as well as refrigerant handling, component replacement, and system diagnosis will be covered. **Prerequisite:** AUTO 125.

**AUTO 234**  
**ENGINE PERFORMANCE II**  
**(80.00 Lecture/Lab Hrs. Total) 4 Credits**  
 Building on the basics from Engine Performance I, students delve deeper into computer controlled fuel and emission systems diagnosis and testing. Extensive testing using scan tools, exhaust analyzer, engine/ignition analyzer and oscilloscope will be performed. **Prerequisite:** AUTO 224.

**BA BUSINESS**

**BA 101**  
**INTRODUCTION TO BUSINESS**  
**(4.0 Lecture Hrs./Wk.) 4 Credits**  
 Students survey our business system, economics, e-commerce, ethical behavior, regulatory laws, stakeholder responsibility, competing in the global economy, forms of ownership, starting and financing a business, human relations in business, roles of management and leadership, organizing and working in teams, human resources, production, marketing, financial management, investment, accounting, and information systems.

**BA 131**  
**ACCOUNTING PROCEDURES I**  
**(3.00 Lecture Hrs./Wk.) 3 Credits**  
 Students prepare to perform simple accounting in service organizations emphasizing the accounting cycle, banking procedures, and payroll accounting. This is the first course of a sequence in which students learn to organize financial information and prepare financial reports. This course emphasizes bookkeeping basics.

**BA 132****ACCOUNTING PROCEDURES II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to perform accounting tasks in merchandising organizations including special journals and ledgers; purchases and sales; inventory and prepaid expenses; tangible long-lived assets; and notes receivables. This course emphasizes bookkeeping basics. **Prerequisite:** BA 131 with a "C" grade or better, or instructor approval.

**BA 141****TECHNICIAN CUSTOMER SVC SKILLS****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students build the knowledge, attitudes, and skills needed for delivering outstanding customer service, employing public relation skills, applying effective listening skills, resolving conflict, and using communication devices. Students identify external and internal customers, learn to handle potentially unproductive interactions, and create positive outcomes for all customers. **Prerequisite:** Placement test score for placement in LA 90, WR 40, and MTH 10.

**BA 177****PAYROLL & BUSINESS TAX ACCOUNTING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop the knowledge and skills needed to complete payroll forms and records and to comply with federal and state requirements.

**BA 206****MANAGEMENT FUNDAMENTALS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to the fundamental principles of management as a framework for managerial thinking and operating. A survey of the management functions of planning, organizing, leading, and controlling. A study of organizational interaction and human behavioral conflicts. **Prerequisite:** BA 101 recommended.

**BA 211****PRINCIPLES OF ACCOUNTING I****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn to use basic accounting concepts and procedures including the accounting cycle and dealing with cash, receivables, and merchandise inventories. Students will also become familiar with a commonly used computerized accounting program or spreadsheet. This is first course in a year-long sequence intended for students who are planning to transfer to a four-year college.

**BA 212****PRINCIPLES OF ACCOUNTING II****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn to use accounting concepts and procedures required to prepare cash flow statements and manage tangible and intangible assets; payroll; partnerships and corporations; long-term investments and liabilities; stocks; and bonds. Students demonstrate knowledge of professional accounting standards. Students will become familiar with a commonly used computerized accounting program or spreadsheet. **Prerequisite:** BA 211 with a "C" grade or better or instructor approval.

**BA 213****PRINCIPLES OF ACCOUNTING III****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate the ability to prepare memos, letters, and informal reports; conduct research; and prepare analytical business and/or technical reports. **Prerequisite:** BA 212 with a "C" grade or better or instructor approval.

**BA 214****BUSINESS COMMUNICATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate the ability to prepare memos, letters, and informal reports; conduct research; and prepare analytical business and/or technical reports. **Prerequisite:** COMPASS writing score of 42+, or OA 104; or instructor approval. Recommended keyboarding of 20+ words per minute.

**BA 218****PERSONAL FINANCE****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students develop personal financial skills to help them make better personal monetary decisions.

**BA 223****PRINCIPLES OF MARKETING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the basic issues and practices in marketing management including marketing strategy planning. Students design a marketing mix. **Prerequisite:** BA 101 recommended.

**BA 224****HUMAN RESOURCE MANAGEMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of principles and techniques related to managing human resources emphasizing hiring practices, training and employee development, and personnel management. **Prerequisite:** BA 101 recommended.

**BA 226****INTRODUCTION TO BUSINESS LAW I****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate a basic knowledge of law and its origins, court systems, legal rights and duties, formation of contracts, operation and discharge of contracts, law of sales of goods, and bailments.

**BA 228****AUTOMATED ACCOUNTING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate the ability to use an integrated accounting program to perform accounting functions and solve problems including general ledger, accounts receivable, accounts payable, and inventory. **Prerequisite:** BA 131 or 211, or instructor approval.

**BA 230****MANAGEMENT INFORMATION SYSTEMS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate an understanding of the systems that exist for business management's use in making intelligent decisions, including computers and alternative paper-oriented systems. Students use an integrated software applications package (data base, spreadsheet, word-processing, graphics, and communication) to develop solutions to problems or case studies from social, business, or other applications. **Prerequisite:** OA 201, CSD 122, and CSL 107.

**BA 249****RETAILING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will study and develop general sales techniques involving the factors of successful selling of retail goods and service including retail buying motives, sales psychology, customer approach, and retail sales.

**BA 250****SMALL BUSINESS MANAGEMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of managing the small business enterprise, emphasizing its general functions, procedures, and problems. **Prerequisite:** BA 101 or business experience with instructor approval.

**BA 256****INCOME TAX****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate an understanding of the theory and practice of preparing of federal and state individual income tax returns.

**BA 285****HUMAN RELATIONS IN BUSINESS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate an understanding of the communication aspects of interpersonal behavior including perception, power and influence, group dynamics, conflict, and motivation that are essential for success in the workplace and with friends and family.

**BA 295A****ACCOUNTING DIRECTED PROJECT****(2 Lecture & 6 Lab Hrs./Wk)****4 Credits**

Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in accounting. Students complete a comprehensive project and make a professional presentation. **Prerequisite:** Completion of all but the last quarter of program course work.

**BA 295M****BUSINESS MANAGEMENT DIRECTED PROJECT****(2 Lecture & 6 Lab Hrs./Wk)****4 Credits**

Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in management. Students complete a comprehensive project and make a professional presentation. **Prerequisite:** Completion of all but the last quarter of program course work.

**BI BIOLOGY****BI 101 and BI 101L****GENERAL BIOLOGY - EMPHASIS ON ECOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students investigate a number of significant regional ecosystems, changes that have occurred in these over the past two hundred years, especially human induced changes, and forces driving further potential changes in these systems over the next half century. Students will complete a number of investigations both in and out of lab, and will write several short papers. Biology 101 involves four or five field trips. **Prerequisite:** College level reading. WR 121 and MTH 60 are recommended as Co- or Prerequisites. **Co-requisite:** BI 101 with BI 101L.

**BI 102 and BI 102L****GENERAL BIOLOGY - EMPHASIS ON BIOLOGICAL DIVERSITY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students use basic scientific methods to analyze cell diversity; cell division and proliferation; behavior of cell types; introductory genetics; nature of evolution, natural selection, and origin of species. Upon completion, students explore and formulate descriptions, predictions, and explanations based on scientific data. This is a survey course for non-major students seeking to fulfill a lab science general education requirement. The BI 101, 102, 103 sequence need not be taken in order. **Prerequisite:** College level reading and MTH 60 or higher. A previous biology class and WR 121 Co- or **Prerequisite:** are recommended. **Co-requisite:** BI 102 with BI 102L.

**BI 103 and BI 103L****GENERAL BIOLOGY - EMPHASIS ON BEHAVIOR****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students investigate fundamental science processes and life science concepts with a primary focus on vertebrates and behavioral biology to apply basic scientific methods in an evolutionary approach. Topics include exploration of organism interactions, ecology, diversity, evolutionary relationships, and comparisons of biological systems. Students complete a number of inquiry-based investigations to gather and communicate information. Designed for non-major students seeking to fulfill a general science requirement; sequence need not be taken in order. Includes mandatory early morning laboratory field trips. **Prerequisite:** College level reading. WR 121 and MTH 60 or higher are recommended as Co or Prerequisites. **Co-requisite:** BI 103 with BI 103L.

**BI 112 and BI 112L****CELL BIOLOGY FOR ALLIED HEALTH OCCUPATIONS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn the basic concepts of cell biology, cell anatomy and physiology, metabolism, cell reproduction, and inheritance. Students apply science processes to health related problems. Although this course emphasizes allied health applications, it transfers as a general education (AAOT) lab science. BI 112 acts as a prerequisite to BI 231 (Anatomy and Physiology) and BI 234 (Microbiology). **Prerequisite:** MTH 60 successfully completed and either WR 115 or WR 121 as Co- or Prerequisite. **Co-requisite:** BI 112 with BI 112L.

**BI 143 and BI 143L****MARINE BIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students investigate physical, chemical and biological features of marine environments. Students will examine major groups of marine protists, plants and animals, and interactions within and between these groups. Students will conduct studies of Pacific Northwest intertidal and estuarine ecosystems and will research and report on human impacts on local and worldwide marine ecosystems. **Prerequisite:** WR 121, MTH 60 with a grade of "C", "P" or better, or instructor approval. **Co-requisite:** BI 143 with BI 143L.

**BI 211 and BI 211L****PRINCIPLES OF BIOLOGY I****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students learn fundamental science processes and major concepts of contemporary biology. The course serves largely as a platform for students majoring in life science, natural resources studies or pre-professional programs such as pre-medicine, pre-veterinary, physical therapy, etc. It also meets science general education requirements at most upper level colleges and universities. Students develop skills basic to science investigation, abilities using standard lab equipment, concepts essential for an understanding of modern

biology, and an awareness of roles and relationships between science and the rest of society. BI 211 emphasizes an inquiry into fundamental properties of life, cell structure and function, biological energy transformations, and cell life cycles. Students explore prokaryotic and fungal diversity. **Prerequisite:** High school biology and chemistry or instructor approval. MTH 95 or equivalent. **Co-requisite:** BI 211 with BI 211L.

**BI 212 and BI 212L****PRINCIPLES OF BIOLOGY II****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students continue to learn fundamental science processes and major concepts of contemporary biology. Like other courses in the sequence, the course serves largely as a platform for students majoring in life science, natural resources studies or pre-professional programs such as pre-medicine, pre-veterinary, physical therapy, etc. It also meets science general education requirements at most upper level colleges and universities. Students develop skills basic to science investigation, abilities using standard lab equipment, concepts essential for an understanding of modern biology, and an awareness of roles and relationships between science and the rest of society. Course content focuses on genetics, evolution, and chordate phylogeny and diversity. **Prerequisite:** BI 211 and 211L or instructor approval. **Co-requisite:** BI 212 with BI 212L.

**BI 213 and BI 213L****PRINCIPLES OF BIOLOGY III****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students continue to learn fundamental science processes and major concepts of contemporary biology. The course serves largely as a platform for students majoring in life science, natural resources studies or pre-professional programs such as pre-medicine, pre-veterinary, physical therapy, etc. It also meets science general education requirements at most upper level colleges and universities. This course helps students develop skills basic to science investigation, abilities using standard lab equipment, concepts essential for an understanding of modern biology, and an awareness of roles and relationships between science and the rest of society. BI 213 emphasizes an inquiry into plant and animal form and function, plant diversity and principles of ecology. **Prerequisite:** BI 212 and 212L or instructor approval. **Co-requisite:** BI 213 with BI 213L.

**BI 222****HUMAN GENETICS****(3.00 Lecture, Hrs./Wk.)****3 Credits**

Students will investigate principles and patterns of Mendelian inheritance, population genetics and molecular genetics while focusing on human heredity. Upon completion, students think critically and logically to evaluate and analyze relationships associated with emerging genetic technologies. **Prerequisite:** A previous biology class and MTH 60 or instructor approval.



**BI 231 and BI 231L****HUMAN ANATOMY AND PHYSIOLOGY I****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students acquire a basis for understanding the structure and function of healthy, normal human anatomy and human physiology. Students successfully completing the class should have the ability to link the 6 levels of organization in the human body from chemical level to the systemic level; to define homeostasis and explain the importance; to describe the importance of ions in the body and associate the importance of electrolyte interactions; to relate the structures and functions of normal body systems, to approach and examine sources to stay current in emerging information about the human body. **Prerequisite:** GS 112 or BI 112 or BI 211, or a year of high school Biology. **Co-requisite:** BI 231 with BI 231L.

**BI 232 and BI 232L****HUMAN ANATOMY AND PHYSIOLOGY II****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn the form and function of the dynamic human body which is required for health service occupations and further study in the biological sciences. Students master knowledge and concepts of the nervous system, the endocrine system, and the cardiovascular system, including body fluids. Laboratory investigations will use hands on activities, examine scientific reasoning, evaluate models, and develop clinical skills. **Prerequisite:** BI 231 and 231L. **Co-requisite:** BI 232 with BI 232L.

**BI 233 and BI 233L****HUMAN ANATOMY AND PHYSIOLOGY III****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn the form and function of the dynamic human body which is required for health service occupations and further study in the biological sciences. Students master knowledge and concepts concerning the immune system, respiratory system, the gastrointestinal system, the renal system, heredity, development, and reproduction. Inquiry based methods are used during laboratory investigations to teach students to use evidence to synthesize concepts related to physiology. **Prerequisite:** BI 232 and 232L. **Co-requisite:** BI 233 with BI 233L.

**BI 234 and BI 234L****INTRODUCTION TO MICROBIOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students are introduced to basic microbiology principles. Students investigate microbial morphologic characteristics, growth and inhibition of microbes, distinguish differences between bacteria types, learn general immunology, and investigate common diseases. Students will gain practical skills in aseptic techniques and basic lab procedures, including staining. **Prerequisite:** GS 112 or BI 112 or BI 211, or a year of high school Biology. **Co-requisite:** BI 234 with BI 234L.

**BLD BUILDING CONSTRUCTION****BLD 101****INTRO TO HISTORIC PRESERVATION****(1.0 Lecture Hr./Wk.)****1 Credit**

Introduction to issues of historic preservation. Students gain an overview of the field including terminology, standards, history, theory, resources and technologies.

**BLD 103****RESIDENTIAL MATERIALS AND METHODS****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students learn the function and performance characteristics of basic building materials, components, methods, and sequences in the construction process. Emphasizes residential construction.

**BLD 104****CONSTRUCTION MATH****(2.0 Lecture Hrs./Wk.)****2 Credits**

Students solve practical problems involving fractions, decimals, percentages, linear measurement, area measurement, volumetric measurement, unit conversions, geometry and trigonometry as used in the building trades. They apply mathematical techniques to estimate building materials and costs.

**BLD 110****CONSTRUCTION SAFETY FOR HISTORIC PRESERVATION****(10.0 Lecture and 8 Lecture/Lab Hrs. Total)****1 Credit**

Students learn safe work practices for historic preservation and construction.

**BLD 111****TOOL SAFETY FOR HISTORIC PRESERVATION****(10.0 Lecture and 8 Lecture/Lab Hrs. Total)****1 Credit**

Students learn to safely use and maintain hand and power tools for historic preservation and construction.

**BLD 120****CONSTRUCTION SKILLS: SITEWORK****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of sitework. Specific projects determined by instructor and student interest. **Prerequisites:** BLD 110 and BLD 111.

**BLD 121****CONSTRUCTION SKILLS: FOUNDATION SYSTEMS****(12 Lecture Hrs. Total.)****1 Credit**

Students gain knowledge and practical hands-on experience in materials and methods of construction for foundation systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 122**  
**CONSTRUCTION SKILLS: FLOOR SYSTEMS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of construction for floor systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 123**  
**CONSTRUCTION SKILLS: WALL SYSTEMS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of construction for wall systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 124**  
**CONSTRUCTION SKILLS: ROOF SYSTEMS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of construction for roof systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 125**  
**CONSTRUCTION SKILLS: MOISTURE AND THERMAL PROTECTION**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of construction for moisture and thermal protection. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 126**  
**CONSTRUCTION SKILLS: DOORS AND WINDOWS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of construction for doors and windows. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 127**  
**CONSTRUCTION SKILLS: STAIRS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of construction for stairs. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 128**  
**CONSTRUCTION SKILLS: FINISH WORK**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of construction for finish work. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111.

**BLD 129**  
**BUILDING ANALYSIS AND DOCUMENTATION**  
 (12.0 Lecture Hrs. Total) **1 Credit**  
 Students gain knowledge and practical hands-on experience in analysis and documentation of existing building conditions. Assessment of materials, components and systems will be done to determine qualities and deterioration and an assessment report will be written. **Prerequisites:** BLD 110 and BLD 111.

**BLD 131**  
**MATERIALS: CONCRETE**  
 (12.0 Lecture Hrs. Total) **1 Credit**  
 Students gain knowledge and practical hands-on experience in applications and properties of concrete in construction. Students will work on a project using concrete as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 132**  
**MATERIALS: MASONRY**  
 (12.0 Lecture Hrs. Total) **1 Credit**  
 Students gain knowledge and practical hands-on experience in applications and properties of masonry in construction. Students will work on a project using masonry as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 133**  
**MATERIALS: PLASTER**  
 (12.0 Lecture Hrs. Total) **1 Credit**  
 Students gain knowledge and practical hands-on experience in applications and properties of plaster in construction. Students will work on a project using plaster as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 134**  
**MATERIALS: WOOD**  
 (12.0 Lecture Hrs. Total) **1 Credit**  
 Students gain knowledge and practical hands-on experience in applications and properties of wood in construction. Students will work on a project using wood as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 135****MATERIALS: METAL****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of metal in construction. Students will work on a project using metal as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 136****MATERIALS: GLASS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of glass in construction. Students will work on a project using glass as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 137****MATERIALS: FINISHES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of finishes in construction. Students will work on a project using finishes as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 138****MATERIALS: ADHESIVES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of adhesives in construction. Students will work on a project using adhesives as a building material. **Prerequisites:** BLD 110 and BLD 111.

**BLD 139****MATERIALS ANALYSIS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in analysis of construction materials. Students will work on an advanced project involving research, testing and analysis of selected materials. **Prerequisites:** BLD 110 and BLD 111.

**BLD 140****PRINT READING FOR CONSTRUCTION****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students learn and apply the principles of reading and interpreting construction prints. They learn the purpose of different types of drawings, the types of projections, applications of math, and the use of conventions, scales, symbols, notes, schedules and dimensions in construction drawings.

**BLD 151****BUILDING CODES I – INTRO TO RESIDENTIAL CODES****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to the International and Oregon Residential Codes for One and Two-Family Dwellings. They apply the codes to buildings and occupants, and learn the role and influence of codes in design and construction is examined. Topics include: general types of construction; special design for wind forces, flood, seismic events and fire safety; egress and accessibility; energy efficiency; structures and materials.

**BLD 206****GREEN BUILDING****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to the theory and practice of sustainable building for new construction and remodeling of historic buildings.

**BLD 207****PROJECT MANAGEMENT****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students are introduced to construction project management, including overview of the design and construction process, construction planning, coordinating construction projects, cost estimating, labor, material and equipment utilization, negotiating, team work, communication, leadership and ethics.

**BLD 210****HISTORIC PRESERVATION I****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students survey the history and theory of historic preservation. Students gain knowledge to apply historic preservation methods to renovation and restoration construction projects.

**BLD 211****HISTORIC PRESERVATION II****(3.0 Lecture Hrs./Wk.)****3 Credits**

Students study the methodologies for researching and documenting historic buildings. Students complete an historic building analysis and restoration plan for a regional building. **Prerequisite:** BLD 210.

**BLD 220****HISTORIC PRESERVATION & RESTORATION TECHNIQUES: SITEWORK****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in historic site analysis and work. Specific projects determined by instructor and student interest. **Prerequisites:** BLD 110 and BLD 111.

**BLD 221**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**FOUNDATION SYSTEMS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for foundation systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills.

**BLD 222**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**FLOOR SYSTEMS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for floor systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills.

**BLD 223**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**WALL SYSTEMS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for wall systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills.

**BLD 224**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**ROOF SYSTEMS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for roof systems. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 IT 140, IT 141 and 3 credits of Construction Skills.

**BLD 225**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**MOISTURE & THERMAL PROTECTION**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for moisture and thermal protection. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills.

**BLD 226**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**DOORS AND WINDOWS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for doors and windows. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills.

**BLD 227**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**STAIRS**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for stairs. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills.

**BLD 228**  
**HISTORIC PRESERVATION & RESTORATION TECHNIQUES:**  
**FINISH WORK**  
 (12 Lecture Hrs. Total.) **1 Credit**  
 Students gain knowledge and practical hands-on experience in materials and methods of historic preservation and restoration construction for finish work. Specific projects determined by instructor and student interest. Course may be repeated up to four credits. **Prerequisite:** BLD 110 and 111 and 3 credits of Construction Skills.

**BLD 229**  
**BUILDING ANALYSIS AND DOCUMENTATION**  
 (12.0 Lecture Hrs. Total) **1 Credit**  
 Students gain knowledge and practical hands-on experience in analysis and documentation of existing building conditions. Assessment of materials, components and systems will be done to determine qualities and deterioration and an historic building assessment report will be written.

**BLD 231**  
**MATERIALS: CONCRETE**  
 (12.0 Lecture Hrs. Total) **1 Credit**  
 Students gain knowledge and practical hands-on experience in applications and properties of concrete in historic buildings. Students will study the historic use and performance of concrete, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 232****MATERIALS: MASONRY****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of masonry in historic buildings. Students will study the historic use and performance of masonry, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 233****MATERIALS: PLASTER****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of plaster in historic buildings. Students will study the historic use and performance of plaster, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 234****MATERIALS: WOOD****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of wood in historic buildings. Students will study the historic use and performance of wood, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 235****MATERIALS: METAL****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of metal in historic buildings. Students will study the historic use and performance of metal, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 236****MATERIALS: GLASS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of glass in historic buildings. Students will study the historic use and performance of glass, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 237****MATERIALS: FINISHES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of finishes in historic buildings. Students will study the historic use and performance of finishes, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 238****MATERIALS: ADHESIVES****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in applications and properties of adhesives in historic buildings. Students will study the historic use and performance of adhesives, analyze pathologies and learn repair methodologies. **Prerequisites:** BLD 110 and BLD 111.

**BLD 239****MATERIALS ANALYSIS****(12.0 Lecture Hrs. Total)****1 Credit**

Students gain knowledge and practical hands-on experience in analysis of historic construction materials. Students will work on an advanced project involving research, testing and analysis of selected materials. **Prerequisites:** BLD 110 and BLD 111.

**BLD 295****HISTORIC PRESERVATION & RESTORATION DIRECTED PROJECT****(2.0 Lecture, 4.0 Lecture/Lab Hrs./Wk.)****4 Credits**

Students synthesize knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of interest. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Historic Preservation and Restoration program. **Prerequisite:** Completion of all but the last quarter of program course work.

**BOT BOTANY****BOT 101****BOTANY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students will investigate life processes within plants and their relationship to plant form and anatomy. Students will also explore plant/people relations, ecology, genetics, diversity and evolutionary relationships among plants. **Prerequisite:** WR 121 or instructor approval.

**CH CHEMISTRY****CH 104 and CH 104L****INTRODUCTORY CHEMISTRY I****(3.00 Lecture, 2.00 Lecture/Lab, & 1.00 Lab Hrs./Wk.) 4 Credits**

Students master basic knowledge of atomic theory, elements, compounds, bonding, naming, and radioactivity. **Note:** This course is designed for students with no prior chemistry course work and emphasizes applications to nursing and related areas. The two-quarter series is good preparation for CH 221 General Chemistry. **Prerequisite:** Mastery of basic arithmetic, percentages, ratios and proportions, and conversions, MTH 70 with a grade of "C", "P" or better. **Co-requisite:** CH 104 with CH 104L.

**CH 105 and CH 105L****INTRODUCTORY CHEMISTRY II****(3.00 Lecture, 2.00 Lecture/Lab, & 1.00 Lab Hrs./Wk.) 4 Credits**

Students master basic knowledge of chemical reactions, gases, liquids, solids, acids, and bases. This is the second term of a two-quarter introductory general chemistry series. **Prerequisite:** CH 104 and 104L or equivalent with a "C" grade or better. **Co-requisite:** CH 105 with CH 105L.

**CH 106 and CH 106L****INTRODUCTORY CHEMISTRY - BIOCHEMISTRY****(3.00 Lecture, 2.00 Lecture/Lab, & 1.00 Lab Hrs./Wk.) 4 Credits**

Students master basic knowledge of the fundamental principles of biochemistry including organic chemistry and three classes of biomolecules: carbohydrates, lipids (fats and oils), and proteins. This course is designed to introduce students to the molecular design of life. **Prerequisite:** CH 104 and 104L and 105 and 105L or equivalent with a grade of "C" or better. **Co-requisite:** CH 106 with CH 106L.

**CH 120 and CH 120L****CHEMISTRY IN ART****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

This is a BEGINNING course in chemistry. No previous knowledge of chemistry is necessary to take this course. Topics will include atoms, molecules, elements, compounds, the periodic table, chemical bonding and reactions, acids and bases, oxidation and reduction, and polymers. However, all of these concepts will be described as we explore the chemistry of art media — media such as paints, dyes, metals, alloys, ceramics, glass, plastics, paper, fibers, and photographic materials. **Prerequisite:** MTH 60 or higher, with a grade of "C", "P" or better. **Co-requisite:** CH 120 with CH 120L.

**CH 221 and CH 221L****GENERAL CHEMISTRY I****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students understand and apply the principles that govern the behavior of matter as a foundation for further college study in the sciences and engineering. Students will learn and demonstrate both qualitative and quantitative understanding of stoichiometry, periodicity, atomic and molecular structure, formulas and equations,

chemical bonding, thermodynamics, and chemical reactions. Data acquisition and handling by computers is stressed. Service course covering the principles of chemistry for the student who already has a good knowledge of high school chemistry. Must be taken in sequence. **Prerequisite:** Two years high school algebra or equivalent (MTH 95 or higher) and mastery of the principles of high school chemistry or completion of CH 105 and 105L, and instructor approval. **Co-requisite:** CH 221 with CH 221L.

**CH 222 and CH 222L****GENERAL CHEMISTRY II****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students further understand and apply the principles that govern the behavior of matter as a foundation for further college study in the sciences and engineering. Students will learn and demonstrate both qualitative and quantitative understanding of gases, acids and bases, kinetic molecular theory, equilibrium, and solubility. Data acquisition and handling by computers is stressed. Service course covering the principles of chemistry for the student who already has a good knowledge of high school chemistry. Must be taken in sequence. **Prerequisite:** CH 221 and 221L with a "C" grade or better and instructor approval. **Co-requisite:** CH 222 with CH 222L.

**CH 223 and CH 223L****GENERAL CHEMISTRY III****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students further understand and apply the principles that govern the behavior of matter as a foundation for further college study in the sciences and engineering. Students will learn and demonstrate both qualitative and quantitative understanding of thermodynamics, nuclear reactions, electrochemistry, organic chemistry (an introduction), environmental chemistry, and chemistry of volcanoes. Data acquisition and handling by computers is stressed. Service course covering the principles of chemistry for the student who already has a good knowledge of high school chemistry. **Prerequisite:** CH 222 and 222L with a "C" grade or better and instructor approval. **Co-requisite:** CH 223 with CH 223L.

**CWE COOPERATIVE WORK EXPERIENCE**

The Cooperative Work Experience program allows students to earn college credit for working in the community in an area related to the student's academic goals. Contact the Director of Cooperative Work Experience at (503) 338-2480 for the appropriate CWE class, seminar and registration information. All work experience students are required to take a one (1) credit work experience seminar with their first work experience.

**CWE 180  
COOPERATIVE WORK EXPERIENCE (CAREER  
DEVELOPMENT)****1-11 Credits**

Students work in the community in a position that allows them to gain pertinent skills and exposure relevant to their academic goals. Prior to the beginning of the work experience, students create individual learning objectives in cooperation with an identified Worksite Supervisor. Student learning objectives are reviewed and approved by the student's Academic Advisor. The learning objectives guide student learning during the term. Student progress is monitored by Cooperative Work Experience staff. Students participate in regular monitoring meetings. Students submit required paperwork and are evaluated by their Worksite Supervisor. Students demonstrate skill mastery as the work experience progresses. **Prerequisite:** Students must be enrolled in either the AGS degree program or in courses leading to a 4-year degree. **Co-requisites:** Concurrent enrollment in or completion of a Cooperative Work Experience seminar.

**CWE 280  
COOPERATIVE WORK EXPERIENCE****1-11 Credits**

Students work in the community in positions which allow them to demonstrate the skills they have gained during their academic training. Prior to beginning the work experience, students create individual learning objectives in cooperation with an identified Worksite Supervisor. Student learning objectives are reviewed and approved by the student's Faculty Advisor and/or Program Supervisor. Student learning objectives are consistent with program outcomes and guide student learning during the term. Student learning is monitored by Cooperative Work Experience staff. Students participate in regular monitoring meetings. Students submit required paperwork, and are evaluated by their Worksite Supervisor. Students assume greater responsibility on the job as the work experience progresses. **Prerequisite:** None, however, students must have adequate academic training to be successful in an entry-level position. Registration requires the signature of a Cooperative Work Experience staff member. **Co-requisite:** concurrent enrollment in or completion of a cooperative work experience seminar.

**CWE 281  
COOPERATIVE WORK EXPERIENCE SEMINAR  
(1.00 Lecture Hr./Wk.)****1 Credit**

Students enrolling in Cooperative Work Experience will participate in this seminar to discuss and develop an understanding of appropriate and effective work practices. **Co-requisite:** placement in an appropriate cooperative work experience job and instructor approval.

**CJ CRIMINAL JUSTICE**

*Note: All Criminal Justice courses must be completed with a C grade or higher.*

**CJ 107  
CRIMINAL JUSTICE WORKSHOP  
(3.00 Lecture Hrs./Wk.)****3 Credits**

Students look critically at various controversial ideas, issues and recent events pertaining to the criminal justice system. Students will also examine issues rooted in gender, race, ethnicity, sexual preference and other protected classes.

**CJ 110  
INTRODUCTION TO LAW ENFORCEMENT  
(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study law enforcement in the United States, including: its historical development; police practices, policies and procedures; the roles and responsibilities of the American law enforcement officer; issues pertaining to recruitment, training and retention of officers; physical, emotional and psychological demands of the profession on its employees; ethics; and the influence of diverse populations on police personnel practices and on policies and procedures governing day to day police operations.

**CJ 111  
INTRO TO CRIMINAL JUSTICE  
(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop a fundamental understanding of the criminal justice system, the problem of crime, the theories of crime causation, society's response to criminals, and the key legal principles that form the foundation of the criminal justice system.

**CJ 114  
GENDER, RACE, CLASS AND CRIME  
(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the impact of cultural diversity on the American criminal justice system, including the historical treatment of minorities; cross-cultural communication between criminal justice personnel and diverse populations; criminal patterns and trends; and cultural diversification of the criminal justice personnel, including recruitment and hiring of minority populations.

**CJ 120****INTRODUCTION TO THE JUDICIAL PROCESS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the American judicial system, including the processing of cases from arrest or filing to appeal stages; the similarities and differences between the federal and various state systems; the duties, functions and interaction of the system's personnel; issues related to taking the case from investigation to conviction; and the impact and influence of diverse populations on the policies, procedures and operations of American courts.

**CJ 121****CONCEPTS OF CRIMINAL LAW****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study substantive criminal law for criminal justice professionals, including the basic elements of a crime; the legal definitions of various crimes; criminal liability and culpability; and, recognized legal defenses to a crime.

**CJ 130****INTRODUCTION TO CORRECTIONS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the American correctional system, including its historical development; correctional ideologies; state and federal custodial and community-based programs; the impact of confinement; inmate rights; and, the impact of the correctional profession on correctional personnel.

**CJ 138****UNDERSTANDING TERRORISM****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine major international and domestic terrorist groups from an historical and modern day perspective to acquire fundamental knowledge concerning each group's ideology, motivational factors, targets and operations and the response of the criminal justice community.

**CJ 203****CRISIS INTERVENTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students identify crisis intervention techniques for criminal justice personnel focusing on an understanding of the immediate needs of a person in crisis and on crisis intervention techniques in various situations, including domestic violence, suicide, sexual assault; and on the impact of intervention on the criminal justice intervenor.

**CJ 205****FEMALE OFFENDERS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the nature and extent of female criminal activity, the major criminal theories pertaining to causation issues, the special issues faced by the criminal justice system in dealing with female offenders, and current trends in the intervention, treatment, rehabilitation and punishment of female offenders.

**CJ 210****CRIMINAL INVESTIGATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the history, theory and principles of criminal investigation, including strategies and procedures; the use of forensic techniques in evidence collection, preservation and analysis; crime lab operations, techniques, capabilities and limitations. **Prerequisite:** CJ 111.

**CJ 212****REPORT WRITING IN CRIMINAL JUSTICE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop skills essential to being able to write factual reports based on observation and/or hearsay in a clear, concise, accurate and grammatically correct manner. **Prerequisite:** WR 121.

**CJ 215****ISSUES IN CRIMINAL JUSTICE SUPERVISION AND ADMINISTRATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge of the history, structure, and current issues in criminal justice that deal with supervision and management.

**CJ 218****INTERVIEW AND INTERROGATION TECHNIQUES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain an understanding of the differences between interviewing and interrogation and their applicability in criminal justice settings; will learn basic techniques used when gathering information from victims, witnesses, suspects or other interested parties; and will be familiar with the role deception plays in the information gathering process. **Prerequisite:** CJ 210.

**CJ 219****INTRODUCTION TO COMMUNITY POLICING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students explore how the police and citizens can work together to solve community problems. Topics include the history, current programs and future trends in community policing.

**CJ 225****CORRECTIONS LAW****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study how law affects the corrections environment through an examination of the legal rights and responsibilities of inmates, officers and prison administration and how law impacts the operations of correctional facilities.



**CJ 230****INTRO TO JUVENILE CORRECTIONS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the juvenile correctional system in the United States, including the philosophy behind the juvenile court and various custodial and community-based correctional and treatment programs.

**CJ 231****JUVENILE LAW****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will study the historical development of juvenile criminal rights, including key U.S. Supreme Court decisions, and their impact on the interaction between Criminal Justice personnel and juveniles in America.

**CJ 232****INTRODUCTION TO CORRECTIONS CASEWORK****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study criminal justice counseling and interviewing techniques, including the role of the counselor; the counseling process; criminal personalities and behaviors; various treatment modalities; and ethical and legal issues that criminal justice counselors face.

**CJ 243****ALCOHOL AND OTHER DANGEROUS DRUGS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study drug and alcohol use and abuse, including an historical look at drug and alcohol use and abuse; the attempts to regulate and control the substances; symptoms of use and abuse; the prejudicial and discriminatory intent and underpinnings of drug regulation in America; and the impact of alcohol and dangerous drugs on the American criminal justice system.

**CPL CREDIT FOR PRIOR LEARNING****CPL 121****INTRODUCTION TO CREDIT FOR PRIOR LEARNING****(1.00 Lecture Hr./Wk.)****1 Credit**

Student explores the option of receiving credit for prior learning. Focuses on relating previous learning and experience to specific programs and courses at the college. Covers writing a concise goal statement, preparing a detailed work history, and preparing to consult with instructor/evaluators in programs offering credits based on prior learning. **Prerequisite:** None; however, WR 115 or WR 121 are recommended.

**CPL 122****CREDIT FOR PRIOR LEARNING: PORTFOLIO DEVELOPMENT****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students develop a prior learning portfolio. Emphasizes relating previous learning and experiences to outcomes and content contained in course outlines. Integrates information from consultations with instructor/evaluators into detailed essays and documentation in support of claims to prior learning. Includes submission of final portfolio for review. **Prerequisite:** CPL 121. Also, WR 115 or WR 121 are highly recommended.

**CS COMPUTER SCIENCE****CS 101****FUNDAMENTALS OF COMPUTING****(1.00 Lecture Hr./Wk.)****1 Credit**

Students study contemporary computer terminology; learn about the Internet; are introduced to operating system software; learn about application software; learn file management; learn how to log into a network and use the college email system.

**CS 125H****BEGINNING WEB SITE DESIGN AND DEVELOPMENT****(2.00 Lecture and 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students create World Wide Web sites using Hypertext Markup Language (HTML) and web site design tools. Students examine the principles and elements of effective web design.

**CS 131****INTRODUCTION TO COMPUTER INFORMATION SYSTEMS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn and apply theory, elements, and structures of microcomputer systems (including hardware and software) to develop computer literacy. This class also provides hands-on experience using computer applications in preparation for more advanced classes. **Prerequisite:** CS 101 or OA 120 recommended for students with little or no computer experience.

**CS 135H****ADVANCED WEB SITE DESIGN AND DEVELOPMENT****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students create interactive World Wide Web sites using scripting and Dynamic XHTML. Students examine the principles and elements of effective web design. This is the second course in Web design and development. **Prerequisite:** CS 125H or instructor approval.

**CS 135W****WEB SITE MANAGEMENT****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students explore the issues and techniques of managing web sites. Topics include setting up web sites, file maintenance and management, controlling access, security, testing, server side technologies, managing dynamic web applications, task management, and interacting with clients. **Prerequisite:** CS 125H or instructor approval.

**CS 160**

**INTRODUCTION TO COMPUTER PROGRAMMING**

(3.00 Lecture, 3.00 Lab Hrs./Wk.)

**4 Credits**

Students learn the discipline of computer programming for both computer science and non-computer science majors. Topics include problem solving, computer logic, data representation, algorithms, features of structured programming and issues in software development. Students study how computers use software to perform useful tasks, how such software is constructed and how to build Graphic User Interfaces (GUIs) for data input and display.

**CSD 122**

**BEGINNING DATABASE PROGRAM DEVELOPMENT**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

Students become familiar with the capabilities of standard database management systems including concepts, design elements, and structure. They learn how to store, access, sort, query, create reports and forms, and make additions, deletions, and changes to that database. **Prerequisite:** None. Basic keyboarding skills and computer literacy recommended.

**CSD 275**

**ADVANCED DATABASE PROGRAM DEVELOPMENT**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

Students build on techniques learned in CSD 122 to create a database system and utilize its special features to create interfaces and enhancements. **Prerequisite:** CSD 122.

**CSL 107**

**SPREADSHEETS**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

Students gain an understanding of worksheet design, formulas, charting, what-if analysis, linking and consolidating worksheets through hands-on exercises. **Prerequisite:** None. Basic keyboarding skills and computer literacy recommended.

**DCO DEVELOPMENTAL COMMUNICATIONS**

**DCO 10**

**ABE-READING/WRITING**

Through individualized course work and group activities, students develop the reading and writing skills necessary in college preparation courses and the workforce.

**DESL DEVELOPMENTAL ENGLISH**

**DESL 01**

**ENGLISH FOR SPEAKERS OF OTHER LANGUAGES**

(20.00 Lecture/Lab Hrs./Cr.)

**1-10 Credits**

Students improve their skills in speaking, reading, and writing English necessary for success in daily life and the workforce.

**DESL 03**

**ENGLISH FOR SPEAKERS OF OTHER LANGUAGES-INTENSIVE**

(20.00 Lecture/Lab Hrs./Cr.)

**4-7 Credits**

Students improve their skills in speaking, reading, and writing English necessary for success in daily life and the workforce.

**DESL 07**

**ENGLISH FOR SPEAKERS OF OTHER LANGUAGES - ADVANCED**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

Through advanced studies, students will develop their skills in speaking, reading and writing English in preparation for college courses or vocational training.

**DGED DEVELOPMENTAL GED PREPARATION**

**DGED 48**

**PRE-GED PREPARATION**

Students improve their skills in reading writing and math in preparation for taking the GED test. **Prerequisite:** DMTH 07 and/ or DCO 10 or CASAS score of 215-235 or instructor approval.

**DGED 49**

**GED PREPARATION**

Students improve their knowledge of social studies, writing, literature, science, and mathematics. **Prerequisite:** DGED 48 or CASAS score of 236-242 (Math/Reading) or score of 4 or 5 on writing test or instructor approval.

**DMTH DEVELOPMENTAL MATH**

**DMTH 07**

**ABE - MATHEMATICS**

Students develop skills in whole number mathematics, including adding, subtracting, multiplying, dividing, rounding, estimating and problem solving.

**DRF DRAFTING**

**DRF 139**

**TECHNICAL PRINT INTERPRETATION**

(3.00 Lecture Hrs./Wk.)

**3 Credits**

Students learn and apply the principles of reading and interpreting technical prints. They learn the purpose of different types of drawings in a variety of disciplines, the types of projections, and the use of conventions, scale, symbols, notes and dimensions in planning, construction and assembly.

**DRF 150**  
**CONSTRUCTION DRAWING**  
 (3.00 Lecture Hrs./Wk.)

**3 Credits**

Students are introduced to tools and techniques of sketching and drafting for architecture. Students develop skills to communicate designs for construction and renovation projects including scaling, projection types, plans, elevations, sections, pictorial drawings and drawing conventions. Traditional and computer aided drafting techniques are introduced.

**DRF 213**  
**COMPUTER AIDED DESIGN I**  
 (3.00 Lecture, 3.00 Lab Hrs./Wk.)

**4 Credits**

Students are introduced to computer aided design/drafting (CAD) as an integrated system to represent and communicate designs. Students gain and apply fundamental knowledge of CAD concepts and techniques. They use CAD systems to create, modify and display drawings and create design documents. Students work individually and collaboratively to analyze and solve design problems.

**DRF 214**  
**COMPUTER AIDED DESIGN II**  
 (3.00 Lecture, 3.00 Lab Hrs./Wk.)

**4 Credits**

Students gain and apply knowledge of advanced CAD concepts and techniques. They use CAD systems to develop multi-view, sectional, detail and isometric drawings and demonstrate the use of drawing conventions including dimensioning, hatching, symbols and layouts. Students work individually and collaboratively to analyze and solve design problems. **Prerequisite:** DRF 213 or instructor approval.

**DRF 215**  
**COMPUTER AIDED DESIGN III**  
 (3.00 Lecture, 3.00 Lab Hrs./Wk.)

**4 Credits**

Students gain and apply knowledge of three dimensional CAD concepts and techniques. They use CAD systems to create, manipulate and view surface and solid models, renderings and presentation documents. Students work individually and collaboratively to analyze and solve design problems. **Prerequisite:** DRF 214 or instructor approval.

**DRF 217**  
**AUTOCAD - UPGRADE**  
 (16 Lecture Hours Total)

**1 Credit**

Students develop skills in using new and modified tools and features to get the most out of recent system enhancements. This course is for individuals who are skilled in using AutoCAD and need to upgrade to the latest release. **Prerequisite:** Experienced AutoCAD user.

**DRF 295**  
**CADD DIRECTED PROJECT**  
 (2.00 Lecture, 6.00 Lab Hrs/Wk.)

**4 Credits**

Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of specialization. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Computer Aided Design and Drafting program. **Prerequisite:** Completion of all but the last quarter of program course work.

**EC ECONOMICS**

**EC 201**  
**PRINCIPLES OF MICRO ECONOMICS**  
 (4.00 Lecture Hrs./Wk.)

**4 Credits**

Students study the behavior of individuals and individual firms within different market structures using micro-economic theory. Students apply the concepts of competition, consumer decisions, the use price of economic resources, and international trade in their social context. Students understand the diversity of economic systems.

**EC 202**  
**PRINCIPLES OF MACRO ECONOMICS**  
 (4.00 Lecture Hrs./Wk.)

**4 Credits**

Students survey economic theory, policy, and institutions. They focus on macro-economic theory, scarcity, production, money, unemployment, inflation, and international finance. Students apply analytical skills to social phenomena in order to understand economic behavior

**ECE EARLY CHILDHOOD EDUCATION**

**ECE 110**  
**PLANNING THE ECE ENVIRONMENT**  
 (3.00 Lecture Hrs./Week)

**3 Credits**

Students learn developmentally appropriate equipment, materials, and practices for the indoor and outdoor learning environments. Methods and procedures for implementing curriculum, guidance and discipline, and evaluation are taught.

**ECE 111**  
**FUNDAMENTALS OF EARLY CHILDHOOD EDUCATION**  
 (3.00 Lecture Hrs./Week)

**3 Credits**

Students are introduced to the history of and the role of state and federal government in education. Students learn about the importance of professionalism and ethics for ECE instructors. Students will create a professional portfolio. The course includes one credit of practicum experience.

**ECE 120****ECE CORE CURRICULUM PLANNING****(3.00 Lecture Hrs./Week)****3 Credits**

Students develop an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of language arts ; geography math and science activities, utilizing problem solving strategies and art activities for young children. Students will be able to identify and support learning for English Language learners.

**ECE 130****NUTRITION, HEALTH AND SAFETY OF YOUNG CHILDREN****(3.00 Lecture Hrs./Week)****3 Credits**

Students develop knowledge of children's nutritional needs, health and safety routines, and how to prevent the spread of communicable diseases, and develop appropriate activities for the preschool environment. Students demonstrate an understanding of curriculum analysis, development, planning, implementation, extension, and evaluation of activities that promote physical development in young children. Students will demonstrate knowledge of the identification, the prevention and control, the follow-up, and the state immunization law concerning communicable diseases commonly found in early childhood settings.

**ECE 140****INFANT & TODDLER DEVELOPMENT****(3.00 Lecture Hrs./Week)****3 Credits**

Students develop knowledge of the fundamentals of infant and toddler development, both in theory and practical application, with an emphasis on meeting physical, social, emotional, and cognitive needs of young children. Students will learn scheduling and preparation of age-appropriate activities and how to form strong partnerships between child care providers and parents. Course will require some observation of young children in a child care setting.

**ECE 150****LEGAL ISSUES IN EARLY CHILDHOOD EDUCATION****(3.00 Lecture Hrs./Week)****3 Credits**

Students are prepared to develop a facility and program complying with state and federal laws and regulations. Students demonstrate knowledge of the types of child abuse identified by state and federal law, and the procedures that must be followed when abuse is suspected. Students demonstrate knowledge of the types of child abuse identified by state and federal law and the procedures that must be followed when abuse is suspected. Students demonstrate an understanding of a variety of disabilities in young children, current special education law, and resources available for teachers and parents.

**ECE 160****ECE COMMUNITY PARTNERSHIPS****(30 Lecture Hrs. Total)****3 Credits**

Students will explore ways to encourage family and community collaboration to promote the success and development of young children (birth – eight years old). Awareness of various types of family stress, understanding of the dynamics of family systems, and community relationships will all be discussed.

**ECE 161****OBSERVATION AND ASSESSMENT****(2.00 Lecture and 2.00 Lecture/Lab Hrs./Week)****3 Credits**

Students learn to correctly observe and assess children in an ECE setting. Students learn that strong observation and assessment skills lead to well-planned curriculum and move young children forward on the development continuum. Students learn how to provide feedback to children that encourages confidence and high self-esteem in them.

**♦ ECE 262****TEACHING IN AN ANTI-BIAS CLASSROOM****(3.00 Lecture Hrs./Week)****3 Credits**

This course will introduce students to the professional life of teachers. The students will gain a practical perspective on what goes into meeting the complex challenges of teaching. Students will write a reflective journal and develop a professional portfolio. The course includes practicum experience.

**ECE 263****TEACHING IN AN ANTI-BIAS CLASSROOM****(3.00 Lecture Hrs./Week)****3 Credits**

Prospective ECE instructors learn to help children develop the understanding to monitor themselves and their own behavior thoughtfully and with increasing skill. Teachers will build their guidance skills to aid children in develop internal controls, rather than relying on external factors to help them control their behavior. ECE teachers will understand how to connect behavioral objectives to their student's learning style.

**ECE 264****CURRICULUM DEVELOPMENT AND IMPLEMENTATION****(3.00 Lecture Hrs./Week)****3 Credits**

Students learn to develop, implement, and evaluate early childhood education curriculum (birth-eight years old). Topics will include settings, methods, materials, scheduling, planning, and classroom management. Lessons plans and projects will be developed for the content fields (such as reading/writing, math, social studies, science) using art, music, drama, play, exploration, games, and various strategies.

**ECE 266****LANGUAGE ARTS FOR YOUNG CHILDREN****(3.00 Lecture Hrs./Week)****3 Credits**

Students gain in depth knowledge of how to effectively develop pre-literacy skills. Students will be able to encourage all aspects of literacy, pre-reading, emergent writing and language skills in young children. Students will be able to choose quality literacy teaching resources.

**EET ELECTRICAL ENGINEERING TECHNOLOGY****EET 121****ELECTRICAL SYSTEMS TROUBLESHOOTING I****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn to troubleshoot common electrical problems in industry, such as low voltage, high voltage, open circuits, high resistance, shorts to ground and current/voltage unbalance. Emphasis is on prevention of electrical waste. \*In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card.

**EET 122****ELECTRICAL SYSTEMS TROUBLESHOOTING II****(60 Lecture/Lab Hrs. Total)****3 Credits**

Students build on basic techniques and learn systematic troubleshooting methods and procedures to solve process problems. Analyzing motor control schematics and using advanced digital multi-meters are stressed. Emphasis is on prevention and correction of energy wasting problems. \*In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card. **Prerequisite:** EET 121.

**EET 155****INDUSTRIAL CONTROL SYSTEMS****(2.00 Lecture, 3.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn the control of systems with programmable circuits, applying digital logic to control industrial processes. Students develop skills in assembling, testing and trouble-shooting transducer, control, and power electronic circuits through experiments and projects.

**EGR ENGINEERING****EGR 101****ENGINEERING ORIENTATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate familiarity with the engineering disciplines, curricula at four-year colleges, professional ethics, and licensing requirements for professional engineers. Students gain experience in data collection and engineering problem analysis using tools such as graphing calculators, spreadsheets and word-processing programs. Course includes a team-engineering project. **Prerequisite:** MTH 111 or High School Trigonometry.

**EM EMERGENCY SERVICES****EM 101****INTRODUCTION TO EMERGENCY SERVICES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn about fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

**EMT EMERGENCY MEDICAL TECHNICIAN****EMT 151****EMERGENCY MEDICAL TECHNICIAN BASIC, PART 1****(44 Lecture, 30 Lecture/Lab Hrs.; 74 Hrs. Total)****5 Credits**

Students will be prepared to take the National Registry of Emergency Medical Technicians certification examination for EMT-Basic. This two-part course meets Oregon State Health Division and Fed. Dept. of Transportation requirements for EMT- Basic and prepares the student to provide basic pre-hospital emergency medical care and transportation of the sick and injured. **Prerequisite:** Health Care Provider CPR Certification, Current measles and Hepatitis B immunizations, negative TB test; valid driver's license.

**EMT 152****EMERGENCY MEDICAL TECHNICIAN BASIC, PART 2****(44 Lecture, 22 Lecture/Lab Hrs.; 66 Hrs. Total)****5 Credits**

Continuation of EMT 151. Students demonstrate the knowledge and skills required to provide basic pre-hospital emergency medical care and transportation of the sick and injured. On successful completion of this course, the student will be prepared to pass the Oregon State Health Division certification examination for EMT-Basic. **Prerequisite:** EMT 151 with a "C" grade or better.

**EMT 169****EMERGENCY MEDICAL TECHNICIAN RESCUE****(22 Lecture, 30 Lab Hrs.; 52 Hrs. Total)****3 Credits**

Students demonstrate the knowledge and skills needed to rescue and extricate patients while maintaining personal safety; control and management of the accident scene; and considering needs of the accident trauma patient and the use and maintenance of rescue tools and equipment.

**EMT 176****EMERGENCY RESPONSE: PATIENT TRANSPORTATION****(11 Lecture, 22 Lecture/Lab Hrs.; 33 Hrs. Total)****2 Credits**

Students study ambulance operations, laws, maintenance, safety procedures, emergency driving, and route planning. Student will become familiar with hands-on vehicle inspections and emergency vehicle operations.

**EMT 177****EMERGENCY RESPONSE: COMMUNICATION AND DOCUMENTATION****(22 Lecture Hrs. Total)****2 Credits**

Students study principles of therapeutic communication, via verbal, written, and electronic modes in the provision of EMS; documentation of the elements of patient assessment, care, and transport; communication systems; radio types; reports; codes; and correct techniques.

**ENG****ENGLISH LITERATURE****ENG 104****INTRODUCTION TO LITERATURE – FICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze a variety of short stories and novels, exploring the techniques of fiction and learning the language and process of literary criticism for use in oral and written responses. Through exposure to a wide range of human expression, students will learn to compare/contrast the attitudes and values of specific historical periods and diverse cultures.

**ENG 105****INTRODUCTION TO LITERATURE – DRAMA****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze a variety of plays. They will learn about the conventions of literary drama and dramatic literature's implications both on the page and on the stage. Through exposure to a wide range of human expression, students will learn to compare/contrast the attitudes and values of specific historical periods and diverse cultures.

**ENG 106****INTRODUCTION TO LITERATURE – POETRY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze a variety of poems, both historical and contemporary, formal and free verse. Emphasis will be on finding personal meaning in poetry as well as mastering the techniques of literary criticism. Through exposure to a diversity of texts, students will be able to compare/contrast approaches of poets from specific historical periods or differing world cultures.

**♦ ENG 107****WORLD LITERATURE: THE ANCIENT WORLD****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of texts by authors from the ancient world (Sumerian, Jewish, Greek, Roman, Christian, and Moslem) including poetry, drama, and religious texts. We will study the cultural, literary, political, religious, and social contexts for each work, and will examine the shift from oral to written storytelling traditions.

**♦ ENG 108****WORLD LITERATURE: MEDIEVAL/RENAISSANCE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of texts by authors from the Medieval and Renaissance eras (Italian, French, English, Spanish) including poetry, drama, and prose. We will study the cultural, literary, political, religious, and social contexts for each work, and will examine the shift from manuscripts to printed texts.

**♦ ENG 109****WORLD LITERATURE: AFRICA, ASIA & LATIN AMERICA****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read a sampling of the literature written in the developing world, including texts from Africa, Asia, and South America. We will read folk tales, poetry, short stories, and novels. We will examine primary texts from each region, but will also look at how colonialism has imparted a cross-pollination of cultures.

**ENG 110****INTRODUCTION TO FILM STUDIES****(3.00 Lecture, 1.00 Lab Hrs./Wk.)****3 Credits**

Students enhance their visual literacy by viewing, discussing, and analyzing contemporary film with emphasis on cinematic techniques and critical approaches to this media. Students will understand film in a historic and cultural context, comparing and contrasting attitudes and values of specific periods in film history. Students will also practice critical evaluation of films orally and in writing.

**♦ ENG 180****GOTHIC LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a sampling of literature written in the Gothic tradition, including British and American literature from 1800 to the present. Emphasis will be on reading the works; discussing them, and analyzing style, content, and theme. We will also examine how the themes of Gothic literature have been "resurrected" in popular culture today (film, fashion, music).

**ENG 201****SHAKESPEARE I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study works by Shakespeare with a particular emphasis on Shakespeare's early period and the history plays and early comedies and sonnets. We will study the literary and cultural contexts for each play, as well as theatrical traditions.

**ENG 202****SHAKESPEARE II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study plays written during Shakespeare's Middle period; the problem plays, tragedies, comedies. We will study the literary and cultural contexts for each play, as well as theatrical traditions.

**ENG 203****SHAKESPEARE III****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study plays from Shakespeare's later period, including the Romance genre. We will study the literary and cultural contexts for each play, as well as theatrical traditions.

♦ **ENG 204****ENGLISH LITERATURE – MEDIEVAL****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of works by Medieval English authors including fairy tales, poetry, legends, and longer works such as Beowulf and Canterbury Tales. We will study the cultural, literary, political, religious, and social contexts for each work, as well as the early history of the English language.

♦ **ENG 205****ENGLISH LITERATURE – RENAISSANCE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of works by Renaissance English authors including Shakespearian (Macbeth) and non-Shakespearian (Faust) drama, lyric poetry, epic poetry, and an early novel. We will study the cultural, literary, political, religious, and social contexts for each work, as well as how the printing press revolutionized literature.

♦ **ENG 206****ENGLISH LITERATURE – VICTORIAN & MODERN****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of texts by Victorian and Modern British authors including novels, poems, and short stories. We will study the rise of the female author in England and will examine works by post-colonial authors. We will also discuss how changes in the British Empire altered the voice of British literature.

**ENG 214****LITERATURE/PACIFIC NORTHWEST****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn appreciation and understanding of the interplay of literature and place, with an emphasis upon the northern coast of Oregon. Through study, discussion, and writing about selected literature of the Pacific Northwest and through the direct observation of our natural environment, students will learn about the cultural and environmental factors that have shaped this region's landscape and literature. Examples and literary models will be drawn primarily from the coastal Northwest. Students also learn the perceptions and practices of Native Americans and other populations who have lived in this region through their stories.

♦ **ENG 220****MULTI-CULTURAL AMERICAN LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, discuss, and analyze the literature of one or more American minority groups, thereby examining the historical bases and evolutions of diverse cultural ideas. Assigned texts will explore social constructs in terms of power relationships, and guided discussion will help students recognize how culturally-based assumptions influence perceptions and behaviors described in literature.

♦ **ENG 221****INTRODUCTION TO CHILDREN'S LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine a variety of texts from the children's literary tradition, including folk tales, fairy tales, classic stories, nursery rhymes, poems, picture books, and longer works. Emphasis will be on reading and discussing the works, as well as analyzing style, content, and themes.

**ENG 253****SURVEY OF AMERICAN LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, respond to, and analyze works of major authors of American poetry and prose during the period from 1630 to 1860 in the context of the literary movements including Puritanism, Classicism, and Romanticism.

**ENG 254****SURVEY OF AMERICAN LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, respond to, and analyze 19th Century American prose and poetry in light of the development of American civilization.

**ENG 255****SURVEY OF AMERICAN LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read, respond to, and analyze 20th century American prose and poetry in light of the development of American civilization.

♦ **ENG 263****AUTISM IN LITERATURE****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read a variety of genres, including non-fiction, fiction, poetry, biography, and autobiography, in which either the author or a central character is known to be autistic. Emphasis will be on discussing the works, analyzing meanings, researching related topics, making connections between literature and life, understanding autistic culture, and learning about how autism has influenced the literary tradition. Autism in Literature is an introductory level literature course.

**ES ENVIRONMENTAL SCIENCE**

**ES 150**  
**INTRODUCTION TO ENVIRONMENTAL SCIENCE**  
 (2.00 Lecture/Lab Hrs./Wk.) **1 Credit**  
 Students will conduct one or more field studies and will investigate academic and professional opportunities in environmental science. Students will present their findings and develop a portfolio. ;

**ES 160**  
**TECHNIQUES IN ENVIRONMENTAL INFORMATION ANALYSIS**  
 (3.00 Lecture, 3.00 Lab. Hrs./Wk.) **4 Credits**  
 Students learn principles of and application of environmental measurement, instrumentation, and data analysis. Students develop mapping, modeling, and group problem-solving skills, and work in groups to complete several field investigations. **Prerequisite:** ES 150, MTH 70, and WR 121.

**ES 202**  
**APPLIED ENVIRONMENTAL STUDIES: PREP FOR PROBLEM SOLVING**  
 (3.00 Lecture, 3.00 Lab. Hrs./Wk.) **4 Credits**  
 Students study the sources and handling of water and wastewater in our community, nation, and world. Students will learn to collect samples, test water and wastewater for biological and chemical parameters, and use that data to address issues, concerns and problems with water and wastewater. **Prerequisite:** ES 160.

**FR FRENCH**

**FR 101**  
**FIRST YEAR FRENCH**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students will focus on introductory grammar, pronunciation, reading, writing, speaking, listening and culture in the French language and Francophone countries. The course is taught in English and French.

**FR 102**  
**FIRST YEAR FRENCH**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students will continue to focus on introductory grammar, pronunciation, reading, writing, speaking, listening and culture in the French language and Francophone countries. The course is taught in English and French. **Prerequisite:** FR 101 or one semester of High School French or instructor approval.

**FR 103**  
**FIRST YEAR FRENCH**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students will continue to focus on introductory grammar, pronunciation, reading, writing, speaking, listening and culture in the French language and Francophone countries. The course is taught in English and French. **Prerequisite:** FR 102 or one year of High School French or instructor approval.

♦ **FR 201**  
**SECOND YEAR FRENCH**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students will focus on intermediate grammar, pronunciation, reading, writing, speaking, listening and culture in the French language and Francophone countries. The course is taught in French. **Prerequisite:** FR 103 or 2 years of High School French or instructor approval.

♦ **FR 202**  
**SECOND YEAR FRENCH**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students will continue to focus on intermediate grammar, pronunciation, reading, writing, speaking, listening and culture in the French language and Francophone countries. The course is taught in French. **Prerequisite:** FR 201 or 2 ½ years of High School French or instructor approval.

♦ **FR 203**  
**SECOND YEAR FRENCH**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students will continue to focus on intermediate grammar, pronunciation, reading, writing, speaking, listening and culture in the French language and Francophone countries. The course is taught in French. **Prerequisite:** FR 201 or 3 years of High School French or instructor approval.

**FRP FIRE PROTECTION**

**FRP 101**  
**PRINCIPLES OF EMERGENCY SERVICES**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students learn an overview of fire protection; career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics. **Prerequisite:** Instructor approval.

**FRP 121**  
**FIRE BEHAVIOR AND COMBUSTION**  
 (3.00 Lecture and 3.00 Lab Hrs./Wk.) **4 Credits**  
 Students explore the theories and fundamentals of how and why fires start, spread and how they are controlled. **Prerequisite:** Instructor approval.



**FRP 151****FIREFIGHTER SKILLS I****(2.00 Lecture and 2.00 Lecture/Lab Hrs./Wk.) 3 Credits**

Students learn knowledge and skills to meet the minimum requirements of competence required of a person to serve as a paid or volunteer firefighter. Students will become familiar with the various types of equipment and procedures needed to function safely as a member of a firefighting team under direct supervision. This course fulfills the requirements of OR-OSHA and the Department of Public Safety Standards and training for entry level firefighters. **Prerequisite:** Instructor approval and must be a firefighter with an agency.

**FRP 155****INSTRUCTIONAL METHODOLOGY****(2.00 Lecture Hrs./Wk.) 2 Credits**

Students develop proficiency in the methodologies and skills needed to conduct fire science instruction using prepared course outlines and materials. **Prerequisite:** Instructor approval.

**FRP 156****FIREFIGHTER LAW****(1.00 Lecture Hr./Wk.) 1 Credit**

Students learn the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. **Prerequisite:** Instructor approval.

**FRP 157****PRINCIPLES OF FIRE AND EMERGENCY SERVICES SAFETY AND SURVIVAL****(1.00 Lecture Hr./Wk.) 1 Credit**

Students are introduced to the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization. **Prerequisite:** Instructor approval.

**FRP 158****FIRE PROTECTION HYDRAULICS AND WATER SUPPLY****(22 Lecture, 22 Lecture/Lab Hrs.; 44 Hrs. Total) 3 Credits**

Students develop the knowledge and skills required to operate various fire pumps and accessories. They will demonstrate competency in drafting, hydrant and tanker operations, and rule of thumb fire ground hydraulic calculations. **Prerequisite:** FRP 151 or instructor approval.

**FRP 164****HAZARDOUS MATERIALS****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total) 3 Credits**

Students gain the knowledge and skills needed to safely respond to and manage a chemical emergency. This includes proper application of foam for vapor suppression and basic plugging and patching of minor hazardous material releases. **Prerequisite:** Instructor approval.

**FRP 166****BUILDING CONSTRUCTION FOR FIRE PROTECTION****(3.00 Lecture Hrs./Wk.) 3 Credits**

Students learn the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The elements of construction and design of structures are shown to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. **Prerequisite:** Instructor approval.

**FRP 168****EMERGENCY SERVICE RESCUE****(22 Lecture, 30 Lab Hrs.; 52 Hrs. Total) 3 Credits**

Students demonstrate the knowledge and skills needed to rescue and extricate patients while maintaining personal safety; control and management of the accident scene; and considering needs of the accident trauma patient and the use and maintenance of rescue tools and equipment. **Prerequisite:** Instructor approval.

**FRP 169****INTRODUCTION TO FIRE AND EMERGENCY SERVICE ADMINISTRATION****(3.00 Lecture Hrs./Wk.) 3 Credits**

Students learn the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis is on fire service leadership from the perspective of the company officer. **Prerequisite:** Instructor approval.

**FRP 170****FIREFIGHTING STRATEGY AND TACTICS****(3.00 Lecture Hrs./Wk.) 3 Credits**

Students analyze the principles of fire control through the use of personnel, equipment, and extinguishing agents on the fire ground. **Prerequisite:** Instructor approval.

**FRP 171****FIRE PROTECTION SYSTEMS****(33.00 Lecture Hrs. Total) 3 Credits**

Students learn the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. **Prerequisite:** Instructor approval.

**FRP 172****FIRE CODES AND ORDINANCES****(33.00 Lecture Hrs. Total)****3 Credits**

Students study the Uniform Fire Code, State Fire Marshal Fire Safety Regulations and related Oregon revised statutes, National Fire Prevention Association, and other codes relating to fire prevention and life safety. **Prerequisite:** Instructor approval.

**FRP 174****FIRE INVESTIGATION I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the firesetter, and types of fire causes. **Prerequisite:** Instructor approval.

**FRP 181****FIRE PREVENTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education. **Prerequisite:** Instructor approval.

**FRP 190****INTRODUCTION TO WILDLAND FIREFIGHTING****(42.00 Lecture, 8.0 Lab Hrs.; 50 Hrs. Total)****4 Credits**

Students will develop the skills needed to be safe and effective firefighters in wildland fire situations. These skills will include situational awareness, basic communication responsibilities, teamwork principles, attitude and stress barriers, the decision-making process, wildland safety, wildland firefighter preparedness, tools and equipment, firing devices, the use of water, suppression techniques, use of maps, securing the control line, scouting, standards for survival, hazmat, wildland tactics, fireline reference materials, documenting activities, fireline communications, environmental effects on the start and spread of wildland fires, and how to recognize potentially hazardous situations in wildland situations. Students who successfully complete this course will have met the standards for the National Wildfire Coordinating Groups classes of L-180, S-130, S-131, and S-190.

**GEO GEOGRAPHY****GEO 100****INTRODUCTION TO PHYSICAL GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain an introductory knowledge of the physical elements of geography and the environment in which people live, with an emphasis on themes pertaining to economic development. Student's learning focuses on natural processes that create physical diversity on the natural landscape, including weather and climate, vegetation, soils, and landform development and change.

♦ **GEO 110****INTRODUCTION TO CULTURAL AND HUMAN GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the evaluation, use, and modification of landscapes and the environment of the earth by the cultural groups occupying them in the past, present, and future. Geographical distribution of important cultural markers such as language, religion, and ethnicity are explored. Population distributions are examined with respect to economic activities as well as rural and urban demographics.

**GEO 120****WORLD AND REGIONAL GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students survey the regions of the modern world. Students gain knowledge of world environments and how nation-states and regions have evolved within the modern world system.

**GEO 130****ECONOMIC AND RESOURCE GEOGRAPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study structures, patterns, and locational principles of economic activities, examine regional economic development, agricultural land use, industrial location, and distribution of service activity. Comparison of real-world examples with theory.

**GS GENERAL SCIENCE****GS 104****PHYSICAL SCIENCE - PHYSICS****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain a solid understanding of the scientific endeavor to make intelligent and informed decisions. This course uses guided inquiry and student projects to study topics on; motion, force, rainbows, and light. For non-science major and pre-service teachers. **Prerequisite:** MTH 70.

**GS 106****PHYSICAL SCIENCE - GEOLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain a solid understanding of the scientific endeavor to make intelligent and informed decisions. This course uses guided inquiry and student projects to study topics on; volcanoes, tsunamis, minerals and energy resources. For non-science majors and pre-service teachers. **Prerequisite:** MTH 70.

**GS 109****PHYSICAL SCIENCE - METEOROLOGY****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students gain a solid understanding of the scientific endeavor to make intelligent and informed decisions. This course uses guided inquiry and student projects to study topics on heat, cloud formation, climate and the greenhouse effect. For non-science majors and pre-service teachers. **Prerequisite:** MTH 70.

**GS 111 and GS 111L****INTRODUCTION TO FORENSIC SCIENCE****(3.00 Lecture, 3.00 Lab Hrs./Wk.)****4 Credits**

Students learn basic forensic science principles and techniques, including identifying, locating, collecting, preserving and testing trace samples. Students learn and apply the scientific method in interpreting data. **Prerequisite:** MTH 65 or higher with a grade of "B", "P" or better, **Co-requisites:** GS 111 with GS 111L.

**GS 112 and GS 112L****INTEGRATED CHEMISTRY & CELL BIOLOGY FOR HEALTH****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students learn basic concepts of matter, atoms and radioactivity, compounds, organic compounds, intermolecular forces, solutions, acids and bases, enzymes, carbohydrates, lipids, proteins, cell chemistry, cell anatomy and physiology, and cell reproduction. Students apply science processes to health-related problems. Although this course emphasizes allied health applications, it transfers as a general education (AAOT) lab science. GS 112 serves as a prerequisite to BI 231 (Anatomy and Physiology) and BI 234 (Microbiology). Dental Hygiene and Dental Assistant students should take the CH 104-106 series. **Prerequisite:** MTH 070 or higher, with a grade of "C", "P" or better. **Co-requisites:** GS 112 with GS 112L.

**GS 161****FIELD BIOLOGY OF OREGON****(20.00 Lecture, 20.00 Lecture/Lab Hrs. Total)****3 Credits**

Students will conduct field-oriented surveys of several Oregon ecosystems. Students will study coastal dunes, several forest systems, coastal riparian zones, wetlands, estuaries, and the rocky intertidal.

**HD****HUMAN DEVELOPMENT****HD 050****COLLEGE SKILLS****(1.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****2 Credits**

Students become familiar with college offices, services, and programs; establish skills in taking notes, reading efficiently, and taking tests; use self-assessment to explore learning and thinking styles, values, and skills; and set educational and career goals. Concurrent enrollment in LA 90 or WR 40 recommended.

**HD 100****COLLEGE SURVIVAL & SUCCESS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop attitudes, skills, and strategies known to promote college success, including goal setting, time management and other personal skills; critical/creative thinking, personal learning style; note taking, study techniques, test taking; and use of college resources. **Prerequisite:** LA 090 or COMPASS scores Writing 42 or above and/or Reading 79 or above. Work is set at university level.

**HD 110****CAREER PLANNING****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students prepare to make informed career choices by clarifying their personality, values, and general abilities; exploring present and future career opportunities; setting career and educational goals; and developing a career action plan.

**HD 145****COPING SKILLS FOR STRESS AND DEPRESSION****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students will study basic theory, overview and practice of managing stress and depression. Topics include recognizing, managing, and modifying causes of stress, altering individual perception of stressful events, and modifying the stress response. The symptoms, causes, and forms of depression will be described, including an overview of methods used in treating depression. The topic of stress will be covered in more detail than depression. This course provides a supportive classroom environment and an educational approach to managing stress and depression. **Prerequisite:** Approval of Lives in Transition Coordinator.

**HD 202****LIFE TRANSITIONS****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students focus on self-exploration and development of life-planning skills. By analyzing predictable life transitions, students develop and learn how to integrate skills in goal setting, decision making, and plan implementation for personal growth and career planning. Introduces non-traditional careers and careers in the professional and technical trades. **Prerequisite:** Approval of Lives in Transition Coordinator.

**HD 209**

**GET THE JOB YOU WANT**

**(33.00 Lecture Hrs. Total.)**

**3 Credits**

Students will develop techniques for résumé writing, completing job search letters and applications. Participate in interviewing which may include videos, role-playing and one-on-one/panel interviews. Complete career exploration through CIS, job shadows and informational interviews as well as an assessment of current skills. How to locate the hidden job market, network and use other techniques for a successful job search. Learn about employer expectations, how to accept and keep a job and dressing for success. Attention to soft skills such as communication, time management and other factors that assist in finding and keeping a job.

**HFS HEALTH & FAMILY STUDIES**

**HFS 226**

**GROWING YEARS: CHILDHOOD DEVELOPMENT**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students develop an understanding of normal human development, mental, social, emotional and physical changes in abilities, needs and interests, of children from the prenatal period through age eight, emphasizing major theorists and research findings.

**HPE HEALTH & PHYSICAL EDUCATION**

**HPE 295**

**HEALTH AND FITNESS FOR LIFE**

**(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)**

**3 Credits**

Students develop an understanding of the relationship between optimal health, wellness, and physical fitness by gaining knowledge of the interacting roles of physical fitness nutritional status, and the ability to cope with stress. **Prerequisite:** MTH 60 recommended.

**HS HUMAN SERVICES**

**HS 101**

**ALCOHOL USE, ABUSE AND ADDICTION**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students learn concepts and perspectives about alcohol abuse and dependence based on a bio-psycho-social approach to alcohol problems. Pharmacology of the drug, models of addiction progression, personal impact on the user and family, and treatment approaches are stressed.

**HS 102**

**DRUG USE, ABUSE AND ADDICTION**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students gain knowledge about mind and mood altering aspects of drugs. Pharmacological, biological, social and psychological factors that affect body, brain and behavior are addressed, along with various models of the progression of addiction and treatment.

**Prerequisite:** HS 101 highly recommended.

**HS 154**

**COMMUNITY SOCIAL SERVICES**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students learn about the history, purpose, philosophy, and values of community services developed for people with various disadvantages or disabilities. Students also become knowledgeable about local social service agencies and organizations, and how to refer clients to them.

**HS 155**

**INTERVIEWING SKILLS FOR SOCIAL SERVICES**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students learn the theoretical background and practice related techniques for establishing and maintaining an effective professional helping relationship. Skills are learned via instruction, modeling and simulated role play in the classroom.

**HS 201**

**FAMILY DYNAMICS OF ADDICTION**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students learn to use models of family process to understand the effects of chemical dependency on the whole family: addictive behavior in the family system, family dynamics, roles, therapeutic interventions, and considerations for recovery. HS 201 is best taken after HS 101 or 102. **Prerequisite:** HS 101 or HS 102 are highly recommended.

**HST HISTORY**

♦ **HST 101**

**HISTORY OF WESTERN CIVILIZATION**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students gain knowledge of the origins and development of civilization from ancient times to the beginnings of Medieval Europe, circa 600 A.D., against the background of Eurasia.

♦ **HST 102**

**HISTORY OF WESTERN CIVILIZATION**

**(3.00 Lecture Hrs./Wk.)**

**3 Credits**

Students develop an understanding of the cultural, social, economic, and political development of Western civilization from 500 A.D. to 1750 A.D. against the background of Eurasia and the world.

## ♦ HST 103

**HISTORY OF WESTERN CIVILIZATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the cultural, social, economic, and political development of Western civilization from 1750 to the present against the background of Eurasia and the world.

## ♦ HST 104

**WORLD HISTORY I: ANCIENT AND EARLY MIDDLE AGES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students survey the historical development of world civilizations from antiquity to 1000 C.E. Students explore religious, cultural, social, political, and economic institutions of various societies. Students develop a diverse historical analysis of both ancient Western and non-Western civilizations.

## ♦ HST 105

**WORLD HISTORY II: LATE MIDDLE AND EARLY MODERN AGES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students survey the historical development of several world civilizations from 1000 to 1750 C.E. Students also explore religious, cultural, social, political, and economic institutions of various societies. Students develop a diverse historical analysis of the late middle and early modern ages of both Western and non-Western civilizations.

## ♦ HST 106

**WORLD HISTORY III: THE MODERN AND CONTEMPORARY WORLD****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students survey the historical development of several world civilizations from 1750 to the contemporary period. Students also explore religious, cultural, social, political, and economic institutions of various societies. Students develop a diverse historical analysis of modern periods of both Western and non-Western civilizations.

## ♦ HST 201

**HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of the political, economic, intellectual, and cultural history of the United States from prehistory to 1820.

## ♦ HST 202

**HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students survey the political, social, and cultural history of the United States between 1820 and 1898. Emphasis will be placed on the debate and crisis of slavery and abolitionism, expansionism, the Civil War, Reconstruction, the rise of industry and the resort to empire in 1898.

## ♦ HST 203

**HISTORY OF THE UNITED STATES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students survey the political, economic, intellectual, and foreign relations history of the United States during the twentieth century.

## HST 218

**NATIVE AMERICAN HISTORY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students explore the history of Native Americans as they come into contact with European-Americans. Students learn the response to the contact, and the differences between the cultures and the struggles against reservation, assimilation, and termination. Students also address current Native American issues.

## HST 245

**LEWIS & CLARK COURSE OF DISCOVERY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will begin by following the vision of Thomas Jefferson acquiring the Louisiana Territory. As the expedition proceeds on, Lewis and Clark make preparation by putting together their tools and team. Students follow the expedition across unmapped territory experiencing challenges with weather, geography, natives, and each other. In conclusion, students review the accomplishments and impacts of the Lewis and Clark expedition.

## HST 277

**HISTORY OF THE OREGON TRAIL****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the explosion of emigration which spread from the United States to the West Coast in the 1800's. More importantly, students look at the motivations of those who emigrated, the various trails, life along the trail, and the impact of emigration.

**HUM HUMANITIES**

## ♦ HUM 101

**INTRODUCTION TO HUMANITIES I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will gain an understanding of the ideas and modes of vision that Western culture has inherited from the classical, medieval, and Renaissance periods. Readings and discussions focus on literature, philosophy, history, art, music, and religion.

## ♦ HUM 102

**INTRODUCTION TO HUMANITIES II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will use a topical and interdisciplinary approach to an understanding of Western culture. Students will examine the art, literature, drama, history, and music regarding some aspect of human behavior such as war, crime, evil, marriage, disease, etc.

♦ **HUM 103**  
**INTRODUCTION TO HUMANITIES III**  
 (3.00 Lecture Hrs./Wk.) **3 Credits**  
 Students will learn about literature, history, language, geography, music and art of a particular human culture.

**IT INDUSTRIAL & MANUFACTURING TECHNOLOGIES**

*Other Automotive classes listed under Automotive Technology (AUTO).*

**IT 110**  
**APPLIED TECHNOLOGY PROJECTS**  
 (20.00 Lecture/Lab Hrs./Cr.) **1-3 Credits**  
 Students advance the laboratory skills and apply theories they have learned from other professional technical classes. **Prerequisite:** Instructor approval.

**IT 140**  
**INDUSTRIAL SAFETY**  
 (20 Lecture/Lab Hrs. Total) **1 Credit**  
 Students use a competency-based program to develop and maintain safe work habits while engaged in various industrial job settings following OSHA guidelines. An overview is provided for the safe use of tools/equipment commonly found in the fabrication/construction industry. Students must demonstrate competency before entering the shop.

**IT 141**  
**TOOL AND SHOP BASICS**  
 (20 Lecture/Lab Hrs. Total) **1 Credit**  
 Students use a competency-based program with associated lab activities to provide the **Prerequisite:** amount of knowledge and skills necessary to use hand tools and perform basic shop practices in layout, measuring, fastener identification and information retrieval.

**J JOURNALISM**

**J 215**  
**JOURNALISM LABORATORY**  
 (4.00 Lecture/Lab Hrs./Wk.) **2 Credits**  
 Students practice newspaper writing, editing, advertising and production while producing the college newspaper. May be repeated up to three times for credit. **Prerequisite:** Successful completion of, or concurrently enrolled in WR 40 or higher.

**LA LANGUAGE ARTS**

**LA 090**  
**FOUNDATIONAL LANGUAGE SKILLS**  
 (6.00 Lecture/Lab Hrs./Wk.) **3 Credits**  
 Students learn to use language skills to read effectively, think clearly, and write properly in preparation for college-level study. Students incorporate skill building in reading comprehension, vocabulary development, grammatical accuracy, and composition. This is the beginning language arts course for students with a COMPASS reading score less than 79 and/or a COMPASS writing score less than 42.

**LIB LIBRARY**

**LIB 127**  
**LIBRARY RESEARCH SKILLS**  
 (1.00 Lecture Hr./Wk.) **1 Credit**  
 In this introduction to finding information, students will build skills in searching the library catalog, periodical indexes, and reference and Internet resources. Students will learn how to construct an effective search strategy, evaluate sources of information, and use and cite information correctly.

**MA MEDICAL ASSISTANT**

**MA 112**  
**MEDICAL ASSISTANT: CLINICAL PROCEDURES I**  
 (2.00 Lecture, 3.00 Lab Hrs./Wk.) **3 Credits**  
 Students demonstrate knowledge and skills necessary to provide basic care to clients and work in medical office or clinic settings. **Prerequisite:** Completion of / or concurrently enrolled in OA 126; and completion of (with a "C" grade or higher) or concurrently enrolled in MA 120.

**MA 113**  
**MEDICAL ASSISTANT: CLINICAL PROCEDURES II**  
 (2.00 Lecture, 6.00 Lab Hrs./Wk.) **4 Credits**  
 Students demonstrate increasing knowledge and skills necessary to provide care to clients and work in medical office or clinic settings, including: preparing clients for examinations and procedures; performing diagnostic tests; recognizing and responding appropriately to emergencies; client teaching; and office management. **Prerequisite:** MA 112, OA 126 and MA 120 with a "C" grade or better; completion of (with a "C" grade or better) or concurrently enrolled in MA 121. **Co-requisite:** Concurrently enrolled in MA 133.

**MA 115****PHARMACOLOGY FOR MEDICAL ASSISTANTS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students acquire and demonstrate knowledge of basic principles and practice of pharmacology and administering drugs. They identify roles and responsibilities of the medical assistant in safely administering selected medications by various routes. In addition, students will study medications related to each of the following classifications: vitamins, minerals and herbs, skin, nervous system, urinary system, gastrointestinal system, anti-infective, analgesics, sedatives and hypnotics, psychotropic meds, musculoskeletal, anticonvulsants, reproductive system, cardiovascular, and respiratory. **Prerequisite:** MA 113 and MA 121 with a C grade or higher; completion of (with a grade C or higher) or concurrently enrolled in MA 231.

**MA 120****BODY STRUCTURE AND FUNCTION I****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn terminology in its proper context, including structure and function of the human body in health and disease. Students will learn basic word structure to guide them in the study of medical language. In addition, a review of each body system will be conducted to include medical words, their components and basic structure and function.

**MA 121****BODY STRUCTURE AND FUNCTION II****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students learn terminology in its proper context, including structure and function of the human body in health and disease. An examination of the following systems to include word forms, prefixes, suffixes, basic structure in health and disease will be completed: nervous system, cardiovascular system, respiratory system, blood system, lymphatic system, musculoskeletal system, sensory system, and endocrine system. **Prerequisite:** MA 120 with a "C" grade or higher.

**MA 133****MEDICAL ASSISTANT CLINICAL PRACTICUM I****(12.00 Lab Hrs./Wk.)****4 Credits**

Students apply knowledge and skills in a medical office setting to provide direct care for patients and to support office functions. **Prerequisite:** MA 112, OA 126 and MA 120 with a C grade or higher; completion with a C grade or higher of, or concurrently enrolled in MA 121 and MA 113.

**MA 231****MEDICAL ASSISTANT CLINICAL PRACTICUM II****(15.00 Lab Hrs./Wk.)****5 Credits**

Students apply increasing knowledge and skills in a medical office setting. Students demonstrate increasing independence in providing direct care for patients and supporting office functions. **Prerequisite:** MA 113 and MA 121 with a C grade or higher; completion (with a grade C or higher) of or concurrently enrolled in MA 115.

**MAS****MARITIME SCIENCE****MAS 3.451****CHARTER BOAT DECKHAND****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students develop an understanding of terminology and back deck practices including most aspects of commercial angling. Participants will also learn how to deal successfully with the public; help promote and preserve the resource and the industry by actions both on and off the job; help maintain the vessel and equipment in good working order; create a safe and pleasurable experience for the client encouraging repeat business; as well as basic seamanship skills and work ethic. **Prerequisite:** Instructor approval and student must pass drug screen prior to receiving certificate.

**MAS 100****MARITIME OCCUPATIONS****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students demonstrate and apply skills in safe seamanship onboard the training vessel Forerunner while learning about the Columbia River Estuary and its user groups. Students will learn how to apply to the US Coast Guard for an Ordinary Seaman Merchant Mariner's Document. For students who are interested in maritime occupations such as towing, commercial fishing, passenger vessels, or research.

**MAS 101****EXPLORING MARINE TECHNOLOGY****(20 Lecture/Lab Hrs. Total)****1 Credit**

Students learn to operate scientific data collection equipment while collecting real scientific data that will be used in an ongoing study of the Lower Columbia River. **Prerequisite:** Instructor approval.

**MAS 120****U.S. COAST GUARD MARINE LICENSE TRAINING****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total)****3 Credits**

Students demonstrate knowledge of the information contained on U.S. Coast Guard examinations, Master or Mate (limited tonnage) near coastal and/or inland waters. **Note:** This course is U.S. Coast Guard approved to be taken in lieu of testing for licenses not to exceed 200 gross tons. A total of nine (9) credits of any MAS licensing course may be applied toward the AGS degree, Associate degree, and the One-Year Maritime Science certificate.

**MAS 121****ABLE SEAMAN TRAINING****(80 Lecture/Lab Hrs. Total)****4 Credits**

Students learn and practice the skills required to pass the US Coast Guard (USCG) Merchant Marine exam for Able Bodied Seaman. Upon successful completion of this training, the student will receive a certificate of completion that satisfies the USCG testing requirements for Able Bodied Seaman any rating. It is highly recommended that students have their Merchant Mariner's application approved by the USCG before enrolling in this course. **Prerequisite:** Instructor approval.

**MAS 122**

**OUPV TRAINING**

**(80 Lecture/Lab Hrs. Total)**

**4 Credits**

Students learn and practice the skills required to pass the US Coast Guard (USCG) Merchant Mariner Exam for Operator of Uninspected Passenger Vessel (OUPV). Upon successful completion of this training course, the student will receive a certificate of completion that satisfies the USCG testing requirements for OUPV. To insure that the student meets the USCG licensing requirements it is strongly recommended that students have received their USCG approval for OUPV prior to enrolling in the class. **Prerequisite:** Instructor approval.

**MAS 123**

**100 TON MASTER TRAINING**

**(100 Lecture/Lab Hrs. Total)**

**5 Credits**

Students learn and practice the skills required to pass the US Coast Guard (USCG) Merchant Mariner exam for Master of Inspected Vessels of not more than 100-gross ton (100-ton Master). Upon successful completion of this training course, the student will receive a certificate of completion that satisfies the USCG testing requirements for licenses within the scope of the course. To insure that the student meets the USCG licensing requirements it is strongly recommended that students have received their USCG approval prior to enrolling in the class. **Prerequisite:** Instructor approval.

**MAS 124**

**200 TON MASTER TRAINING**

**(120 Lecture/Lab Hrs. Total)**

**6 Credits**

Students learn and practice the skills required to pass the US Coast Guard (USCG) Merchant Mariner Exam for Master of Inspected Vessel not to exceed 200-gross ton. Upon successful completion of this training course, the student will receive a certificate of completion that satisfies the USCG testing requirements for licenses within the scope of the course. To insure that the student meets the USCG licensing requirements it is strongly recommended that students have received their USCG approval prior to enrolling in the class. **Prerequisite:** Instructor approval.

**MAS 125**

**500/1600/UNLIMITED LICENSE PREP**

**(40 Lecture/Lab Hrs. Total)**

**2 Credits**

This course is for professional mariners who wish to review examination subjects prior to testing at the US Coast Guard Marine Safety Office for an upgrade increase in scope of an existing license. Students purchase time in forty-hour blocks to meet training objects determined through sample exams and evaluations. This course may be purchased up to four times depending on the extent of the training needs of the student. Testing is completed at a USCG Marine Safety Office. It is highly recommended that students have their USCG approval for the license prior to training. Additional classes may be required to satisfy the STCW requirements. Course may be taken up to four (4) times for a total of eight (8) credits. **Prerequisite:** Instructor approval.

**MAS 126**

**OCEANS ENDORSEMENT PROGRAM**

**(80 Lecture/Lab Hrs. Total)**

**4 Credits**

Students learn and practice the skills required to pass the US Coast Guard (USCG) Merchant Mariner Exam for an Ocean's Endorsement. Upon successful completion of this course the student will receive a certificate of completion that is accepted, in lieu of testing, at the USCG Marine Safety Office, for an ocean endorsement on a license up to and including 1600 ton master of inspected vessels. **Prerequisite:** Instructor approval.

**MAS 128**

**APPRENTICE MATE (STEERSMAN)**

**(120 Lecture/Lab Hrs. Total)**

**6 Credits**

This U.S. Coast Guard approved Apprentice Mate (Steersman) course meets or exceeds the requirements to attain certification under the standards set forth by the U.S. Coast Guard. Students demonstrate skills and knowledge needed to operate effectively as an Apprentice Mate (Steersman). **Prerequisite:** Instructor approval.

**MAS 130**

**RADAR OBSERVER: ORIGINAL ENDORSEMENT, UNLIMITED**

**(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total)**

**2 Credits**

Students acquire knowledge, understanding proficiency in radar operations, collision avoidance second navigation by radar through lecture, demonstration and transfer plotting, using radar simulators. Students engage in the simulator use of Automatic Radar Plotting Aids (ARPA). The U.S. Coast Guard approved courses meets or exceeds the minimum level of knowledge specified in the U.S. Coast Guard STCW and IMO requirements for ARPA.

**MAS 131**

**RADAR OBSERVER: RECERTIFICATION**

**(24 Lecture/Lab Hrs. Total)**

**1 Credit**

Students renew proficiency in plotting problems for collision avoidance, navigation, second radar operation and operation of radar. **Note:** For individuals who would like to refresh their skills before taking the radar endorsement final exam. **Prerequisite:** Radar Observer Certification.

**MAS 132**

**RADAR OBSERVER: RIVERS**

**(24 Lecture/Lab Hrs. Total)**

**1 Credit**

Students gain knowledge, understanding second proficiency required to safely navigate a vessel, with the aid of radar, upon rivers covered by the Inland Navigation Rules of the Road.



**MAS 133****ARPA TRAINING (AUTOMATIC RADAR PLOTTING AIDS)****(32 Lecture/Lab Hrs. Total)****1 Credit**

Students demonstrate the knowledge of the principles and application of ARPA (Automatic Radar Plotting Aids). The U.S. Coast Guard approved course meets or exceeds the minimum level of knowledge specified in the US Coast Guard, STCW and IMO requirements for ARPA. **Prerequisite:** Unlimited radar observer endorsement.

**MAS 134****STCW GMDSS TRAINING (GLOBAL MARINE DISTRESS SAFETY SYSTEM)****(70 Lecture/Lab Hrs. Total)****3 Credits**

Students demonstrate knowledge and skill in the proper use of GMDSS communications systems and other GMDSS equipment such as Emergency Position Indicating Radio Beacons (EPIRB's), and Search and Rescue Transponder (SART). This U.S. Coast Guard approved course meets or exceeds the minimum level of knowledge specified in the US Coast Guard, STCW and IMO requirements for training in Global Marine Distress Safety System (GMDSS). **Prerequisite:** Instructor approval.

**MAS 135****STCW BASIC SAFETY TRAINING****(20 Lecture, 20 Lecture/Lab Hrs.; 40 Hrs. Total)****3 Credits**

Students demonstrate knowledge and practical application of the skills required by the U.S. coast Guard for all persons employed on offshore vessels. Skill areas include safe work habits, proper use of safety and survival equipment, basic firefighting and first aid. **Prerequisite:** Instructor approval.

**MAS 136****STCW BRIDGE RESOURCE MANAGEMENT****(12 Lecture, 12 Lecture/Lab Hrs.; 24 Hrs. Total)****1 Credit**

This Coast Guard approved, STCW Bridge Resource Management course meets or exceeds the requirements to attain certification under the standards set forth by the U.S. Coast Guard, and STCW95 IMO regulations. Students demonstrate skills and knowledge needed to operate effectively in an operational shipboard bridge environment. **Prerequisite:** Instructor approval.

**MAS 137****RADAR NAVIGATION****(10 Lecture, 22 Lecture/Lab Hrs.; 32 Hrs. Total)****2 Credits**

Students demonstrate an understanding of radar theory and operation. Students will use radar/ARPA simulators for navigation and collision avoidance exercises. Students will demonstrate knowledge of previously learned navigation and plotting skills.

**MAS 138****STCW PROFICIENCY IN SURVIVAL CRAFT****(10 Lecture, 22 Lecture/Lab Hrs.; 32 Hrs. Total)****2 Credits**

Course satisfies the requirements of 46 CFR 12.10-5 and section A-VI/2 and table A-VI/2-1 of the STCW-95 code provided the student has completed the personal survival techniques and elementary first aid modules of Basic Safety Training (BST). Students must bring proof of completion of these BST modules to be issued a "Proficiency in Survival Craft" (Lifeboatman) certificate. Students will be required to handle the launch of a lifeboat and perform all tasks required of a lifeboat crew. **Prerequisite:** Instructor approval.

**MAS 139****STCW BASIC FIREFIGHTING****(16 Lecture/Lab Hrs. Total)****1 Credit**

A trainee successfully completing this course will be able to minimize the risk of fire, maintain a state of readiness to respond to emergency situations involving fire and fight & extinguish shipboard fires.

**MAS 144****STCW ADVANCED FIREFIGHTING****(1 Lecture, 23 Lecture/Lab Hrs.: 24 Hrs. Total)****2 Credits**

Students demonstrate knowledge and practical application of the basic fire fighting skills required by the U.S. Coast Guard for all persons employed on offshore vessels. Skill areas include theory of fire, prevention techniques and response/suppression. **Prerequisite:** MAS 139.

**MAS 146****VESSEL OPERATIONS****(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total)****2 Credits**

Students gain practical experience by participating in the operation of the college's fifty-foot training vessel. Activities include preparing for the trip; securing the vessel after the trip; and operations while underway. Many activities are conducted at sea, weather permitting. **Prerequisite:** Instructor approval.

**MAS 147****VESSEL REGULATIONS****(60 Lecture/Lab Hrs. Total)****3 Credits**

Students learn to use the Code of Federal Regulations for Marine Transportation (46 CFR) for owner/operator drills and inspection and the preparation of a vessel for US Coast Guard inspection. **Prerequisite:** Instructor approval.

**MAS 148****VESSEL STABILITY****(60 Lecture/Lab Hrs. Total)****3 Credits**

Students demonstrate and apply the principles of stability, including free surface effect, center of gravity, effects of loading, and the rolling period. **Prerequisite:** Instructor approval.

**MAS 150**  
**CREWMEMBER MARINE SAFETY TRAINING**  
**(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total) 2 Credits**  
 Students demonstrate mastery of the skills and techniques needed for prevention and treatment of cold water near drowning and hypothermia; cold-water survival skills; sea survival; fire fighting and emergency drills; orientation; and emergency instructions.

**MAS 155**  
**INTRODUCTION TO WATCHKEEPING**  
**(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total) 2 Credits**  
 Students demonstrate and apply watchkeeping skills including application of compass error; rules of the road; aids to navigation; marine radios; and position fixing and distance measuring on the nautical chart. Class includes practical experience during boat labs. Concurrently enrolled in MAS 175 is encouraged.

**MAS 164**  
**INTRODUCTION TO NAVIGATION**  
**(60 Lecture/Lab Hrs. Total) 3 Credits**  
 Students demonstrate the knowledge and skills required to conduct a vessel safely from one position to another including position, direction, and distance on the water. Celestial navigation is not included in this course.

**MAS 165**  
**PRACTICAL NAVIGATION**  
**(10 Lecture, 30 Lab Hrs.; 40 Hrs. Total) 2 Credits**  
 Students demonstrate mastery of navigation skills used on Mercator charts, including dead reckoning, fixing a position, and maintaining nautical charts. Students demonstrate proper use of major navigation publications. Concurrent enrollment in MAS 164 is encouraged.

**MAS 167**  
**CELESTIAL NAVIGATION**  
**(80 Lecture/Lab Hrs. Total) 4 Credits**  
 Students demonstrate knowledge and skill in the practical application of plotting lines of position using the sun, moon, planets and stars by sight reduction tables. Students solve the types of celestial navigation problems incorporated in USCG examinations.

**MAS 168**  
**CHARTS, AIDS TO NAVIGATION, AND MARINE COMPASSES**  
**(60 Lecture/Lab Hrs. Total) 3 Credits**  
 Students demonstrate in-depth knowledge of the Lateral and International Association of Lighthouse Authorities aids to navigation systems; the charts used in marine navigation; the magnetic compass, its deviation and compensation; and the basics of gyrocompasses.

**MAS 170**  
**MARINE WEATHER, TIDES, CURRENTS AND WAVES**  
**(60 Lecture/Lab Hrs. Total) 3 Credits**  
 Students demonstrate in-depth knowledge of the effects of tides and currents, use of tables for calculating tides and currents, weather patterns found in the Pacific Northwest, and the use and interpretation of various weather instruments found onboard vessels.

**MAS 171**  
**COASTAL NAVIGATION AND VOYAGE PLANNING**  
**(60 Lecture/Lab Hrs. Total) 3 Credits**  
 Introduction to principles of coastal navigation including tides and currents, set and drift, coastal radar navigation, dead reckoning, estimated positions, and bathymetric navigation. Students will be introduced to proper and effective voyage planning oriented to the Pacific coast and Pacific Northwest including selection of appropriate charts, research of publications, pre-plotting intended course, planning for set and drift, waypoint selection, ETA's, weather, and hazards that may be encountered. **Prerequisite:** MAS 164 or instructor approval.

**MAS 172**  
**OCEAN NAVIGATION AND VOYAGE PLANNING**  
**(80 Lecture/Lab Hrs. Total) 4 Credits**  
 Students will be introduced to the tools and techniques of ocean navigation including great circle routes, electronic position fixing, use of sextant in ocean navigating, latitude by Polaris, latitude by meridian passage, ETA's, universal time, Nautical Almanac, and other publications used for ocean passages. Students will become familiar with ocean passage planning and enroute activities. **Prerequisite:** MAS 171 or instructor approval.

**MAS 175**  
**RULES OF THE ROAD**  
**(60 Lecture/Lab Hrs. Total) 3 Credits**  
 Students gain an in-depth knowledge of the Navigation Rules through studying the history of the Navigation rules, reading case studies of collisions, and analyzing the application of the Navigation Rules. It is suggested that this course be taken consecutively with MAS 155 Introduction to Watchkeeping. **Prerequisite:** Instructor approval.

**MAS 180**  
**MARINE ELECTRONICS**  
**(40 Lecture/Lab Hrs. Total) 2 Credits**  
 Students demonstrate and apply knowledge and skill in the use and operation of marine electronic equipment including radios, sounders, radar, sonar, loran, and Global Positioning System (GPS). **Prerequisite:** Instructor approval.

**MAS 181****SEAMANSHIP I****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students learn and apply knowledge of marlinespike seamanship skills which includes the use of synthetic lines, line handling, and knots and splices, while actively participating in vessel operations. Includes five days of vessel time. **Prerequisite:** Instructor approval.

**MAS 182****SEAMANSHIP II****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students acquire basic skills and knowledge of rigging techniques including the proper use of wire rope and blocks and tackles. Students continue to develop and refine marlinespike seamanship skills. Includes five days of vessel time. **Prerequisite:** Completion of MAS 181 and instructor approval.

**MAS 183****SEAMANSHIP III****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students acquire basic skills and knowledge of the safe operation of deck machinery found on workboats. Students continue to develop marlinespike seamanship skills. Successful completion of the US Coast Guard Able Seaman Practical Knot Exam and demonstration of skills mastered in previous Seamanship classes is required. Includes five days of vessel time. **Prerequisite:** Completion of MAS 182 and instructor approval.

**MAS 184****GALLEY COOKING****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students learn to select healthy, appetizing foods that can be prepared on a vessel underway. Includes safe storage techniques, meal selection, and budgeting. **Prerequisite:** Instructor approval.

**MAS 185****BRIDGE TO BRIDGE COMMUNICATION****(60 Lecture/Lab Hrs. Total)****3 Credits**

Students will learn basic radio law and operation practices of marine radios, general information about Global Marine Distress Safety System (GMDSS) as required under Standards for Training and Certification for Watchkeeping (STCW) and International Maritime Organization (IMO) guidelines. Students will be prepared to take a Federal Communications Commission (FCC) exam on Elements 1 and 7. **Prerequisite:** Instructor approval.

**MAS 186****SMALL VESSEL OPERATIONS I****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students are introduced to the duties and responsibilities of small vessel operations. They demonstrate vessel-handling skills under a variety of conditions while emphasizing standards of safe seamanship. Includes five days of vessel time. **Prerequisite:** Instructor approval.

**MAS 187****SMALL VESSEL OPERATIONS II****(40 Lecture/Lab Hrs. Total)****2 Credits**

Focuses on advancing the skills required to safely handle small vessels under adverse conditions, minimizing the hazards of loading, and organizing and managing a navigational watch. Students are required to demonstrate skills learned in the previous small vessel operation class while onboard the training vessel. **Prerequisite:** Completion of MAS 186 and instructor approval.

**MAS 188****SMALL VESSEL OPERATIONS III****(40 Lecture/Lab Hrs. Total)****2 Credits**

Students develop and demonstrate the skills required for safe operation of a small vessel. Students apply 46 CFR Sub-chapter T regulations for small passenger vessels, including conducting the required drills and inspections. Students also demonstrate advanced vessel handling skills and bridge management strategies. Demonstration of previously learned skills is required while onboard the training vessel. **Prerequisite:** Completion of MAS 187 and instructor approval.

**MAS 189****APPLIED RIGGING TECHNOLOGY****(40 Lecture/Lab Hrs. Total)****2 Credits**

In this hands-on rigging class held onboard the training vessel and in the classroom, students will learn about, and be able to demonstrate techniques and knowledge in, wire and synthetic rope, rigging hardware, tackle blocks, chain, slings, crane operation, crane safety, and load lifting. This course compliments the seamanship series. **Prerequisite:** Instructor approval. This course is intended for second year students.

**MAS 190****VESSEL PRACTICUM****(40 Lab Hrs. Total)****1 Credit**

Students complete predetermined projects onboard the training vessel using skills learned in the classroom. Requires a consultation with an instructor to determine outcome objectives. **Prerequisite:** Instructor consultation and pre-determination of projects.

**MAS 191****DECKHAND PRACTICUM****(40 Lab Hrs. Total)****1 Credit**

Students demonstrate knowledge and skills in vessel safety by actively performing the duties of a deckhand on the college's training vessel. **Note:** a total of four (4) credits of MAS 191 may be applied toward the AGS degree, Associate of Applied Science degree, and the One-Year Maritime Science certificate. Students are required to enroll in College's drug test program. **Prerequisite:** Completion of MAS 150, completion of vessel orientation course, and instructor approval.

**MAS 192**

**INTRODUCTION TO DECK MACHINERY AND SAFETY**

**(40 Lecture/Lab Hrs. Total) 2 Credits**

Students demonstrate knowledge of terminology; back deck practices including the safe operation of all deck equipment onboard the training vessel; safe working practices dockside and under way; making repairs and replacing worn or damaged gear; using crane signals; and maintaining a safe working environment.

**Prerequisite:** Instructor approval.

**MAS 193**

**INTRODUCTION TO ENGINE ROOM MAINTENANCE AND SAFETY**

**(40 Lecture/Lab Hrs. Total) 2 Credits**

Students demonstrate knowledge of terminology; engine room layout and machinery identification; working with limited space and accessibility; repair and maintenance procedures; preventive maintenance; emergency repair; use and care of hand tools; checking fluid levels and grease fittings; good housekeeping; and safe working practices. **Prerequisite:** Instructor approval.

**MAS 201**

**TANK SHIP DANGEROUS LIQUIDS**

**(30 Lecture, 10 Lecture/Lab Hrs. Total) 3 Credits**

This U.S. Coast Guard approved STCW Tank Ship Dangerous Liquids course meets or exceeds the requirements to attain certification under the standards set forth by the U.S. Coast Guard and STCW 95 IMO regulations. Students demonstrate skills and knowledge needed to operate effectively as a Tankerman Person-In-Charge. **Prerequisite:** Instructor approval.

**MAS 205**

**SHIPBOARD MEDICAL CARE PROVIDER**

**(30 Lecture, 5 Lab Hrs.; 35 Hrs. Total) 3 Credits**

Students develop the medical knowledge and skills necessary to provide medical first aid to ship's personnel and to assist the Shipboard Medical Person in Charge (Med Pic) with providing definitive medical care. **Prerequisite:** MAS 135 STCW Basic Safety.

**MAS 208**

**RATINGS FORMING PART OF A NAVIGATIONAL WATCH (RFPNW)**

**(20 Lecture, 12 Lecture/Lab Hrs.; 32 Hrs. Total) 2 Credits**

This Coast Guard Approved 32 hour course provides students with the knowledge and skills, as well as assessments of those skills, necessary to stand lookout and helmsman watches on board vessels that operate under the International Maritime Organization standards.

**MAS 209**

**RATINGS FORMING PART OF A NAVIGATIONAL WATCH (RFPNW) – LOOKOUT ONLY**

**(16 Lecture Hrs. Total) 1 Credit**

This Coast Guard Approved 16 hour course provides students with the knowledge and skills, as well as assessments of those skills, necessary to stand lookout watches on board vessels that operate under the International Maritime Organization standards.

**HM 120**

**HAZWOPER TRAINING**

**(12 Lecture, 12 Lab Hrs.; 24 Hrs. Total) 1 Credit**

Students learn and practice terminology, toxicology, hazard evaluation, chemical identification systems, personal protective equipment and hazardous waste site operations. Meets Federal requirement for HAZWOPER training as outlined in the Code of Federal Regulations, Part 29.

**MIC MICROCOMPUTER APPLICATIONS**

**MIC 145**

**INTRODUCTION TO INTEGRATED SOFTWARE**

**(6.00 Lecture/Lab Hrs./Wk.) 3 Credits**

Students learn to use an integrated software package that includes word-processing, database, spreadsheet, graphics, and communications operations. **Prerequisite:** Touch keyboarding skill recommended.

**MIC 178**

**USING THE INTERNET FOR COMMUNICATION AND RESEARCH**

**(3.00 Lecture Hrs./Wk.) 3 Credits**

Students get overview information and hands-on experience in accessing and using the resources of the INTERNET. Students learn the basics of networked communications and have the opportunity to use their knowledge of a networked environment. **Prerequisite:** CS 131.

**MIC 207**

**PRESENTATION SOFTWARE**

**(2.00 Lecture Hrs./Wk.) 2 Credits**

Students use software packages and creative design principles to create professional quality presentations that may include on-screen, multi-media, slide show, and hard copy applications. **Prerequisite:** CS 131 or MIC 145.

**MIC 295****MICROCOMPUTER DIRECTED PROJECT  
(2.00 Lecture, 6.00 Lab Hrs./Wk.)****4 Credits**

This is the capstone course for the Microcomputer Business Applications program. Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of specialization. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Microcomputer Business Applications program. **Prerequisite:** Completion of all but the last quarter of program course work.

**MTH MATHEMATICS****MTH 10****MATH IMPROVEMENT****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students will recognize, and develop skills to cope with, test and math anxiety. Students develop skills in functional math concepts including place value identification, estimating, rounding, whole number operations, fractions, and decimals. Instruction emphasizes vocabulary and math life skills including patterning, grouping, and logical thinking sequences. **Prerequisite:** Math placement as recommended by COMPASS, or instructor approval.

**MTH 60****PRE-ALGEBRA (drop III)****(8.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students master the fundamentals of applied algebra with some geometry. They compute simple algebraic expressions, first degree equations, dimensional analysis, ratio and proportions, and do some numerical evaluations. **Prerequisite:** Completion of MTH 10 with a grade of "C", "P" or better, placement score of 28 on COMPASS Pre-Algebra test, or Instructor approval.

**MTH 65****MATHEMATICS FOR THE APPLIED SCIENCES****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students solve problems from a variety of occupations using fractions, decimals, percents, proportions, right angle trigonometry, graphs, and statistics. This course satisfies the general education mathematics requirement for most of the Professional and Technical degrees. **Prerequisite:** Completion of MTH 60 with a grade of "B", "P" or better, or placement score of 48 on COMPASS Elementary Algebra test or instructor approval.

**MTH 70****ALGEBRA - BEGINNING****(8.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students employ communication and problem solving skills that involve mathematical reasoning. Topics include solving linear equation in two variables, graphing linear equations, integer exponents, polynomial arithmetic, and factoring polynomials. Students will begin to use graphing calculators as a mathematical tool. **Prerequisite:** Completion of MTH 60 with a grade of "C", "P" or better, or placement score of 48 on COMPASS Elementary Algebra test or instructor approval.

**MTH 95****ALGEBRA - INTERMEDIATE****(8.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students demonstrate an understanding of polynomials, exponents, radical, first and second-degree equations and inequalities, functions and graphs, systems of equations, rational expressions and absolute value functions. For students who have had only one year of high school algebra and/or need a review of concepts typically covered in second year of high school algebra in preparation for college algebra. **Prerequisite:** Completion of MTH 70 with a grade of "C", "P" or better, or placement score of 56 on COMPASS Elementary Algebra test or instructor approval.

**MTH 103****APPLIED COLLEGE ALGEBRA****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students examine algebraic techniques and concepts related to linear, quadratic, rational, piecewise, exponential and logarithmic functions. Problem solving skills, mathematical modeling and applications will be emphasized. Graphing calculator required. **Prerequisite:** MTH 70 with a grade of "B", "P" or better, or appropriate score on the COMPASS mathematics placement tests.

**MTH 105****INTRODUCTION TO CONTEMPORARY MATHEMATICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students use systematic reasoning to solve a variety of problems. Study topics may include history of mathematics, financial mathematics, mathematics of voting, number systems, Euler circuits, geometry, symmetry, Fibonacci numbers, golden ratio, probability and statistics. This course is a survey of mathematical concepts and techniques for non-science majors. **Prerequisite:** MTH 95 with a grade of "C," "P" or better or appropriate score on the COMPASS mathematics placement tests.

**MTH 111****COLLEGE ALGEBRA****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate their knowledge of polynomial, exponential and logarithmic functions through the solution of equations and inequalities using a combination of current technology and algebraic methods. For students who have had two years of algebra and one year of geometry in high school. **Prerequisite:** MTH 95 with a grade of "C," "P" or better or appropriate score on the COMPASS mathematics placement tests.

**MTH 112****ELEMENTARY FUNCTIONS - TRIGONOMETRY****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students are introduced to concepts and applications of trigonometric functions and their inverses by exploring topics such as triangle ratios, periodic functions, and trigonometric identities. For students planning to take MTH 251 Calculus I who have little or no background in trigonometry. **Prerequisite:** MTH 111.

**MTH 116****PRE-CALCULUS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students prepare for calculus and higher mathematics courses. Students will work competently with elementary principles of functions to prepare for the study of higher mathematics and analyze the behavior of different mathematical models. Students will also examine the various conic sections and their applications as well as the elementary ideas of sequences and series and discrete mathematics. **Prerequisite:** MTH 111.

**MTH 211****FUNDAMENTALS OF ELEMENTARY MATHEMATICS I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn concepts and teaching techniques used in elementary school mathematics. Concepts covered include patterning and problem solving, set theory, number systems, basic operations and number theory. **Prerequisite:** Completion of / or concurrently enrolled in MTH 95. Courses do not have to be taken in sequence.

**MTH 212****FUNDAMENTALS OF ELEMENTARY MATHEMATICS II****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn concepts and teaching techniques used in elementary school mathematics. Concepts covered include number theory, integers, fractions, rational numbers, irrational numbers, probability and statistics. **Prerequisite:** MTH 95 with a grade of "C," "P" or better, or instructor approval. Courses do not have to be taken in sequence.

**MTH 213****FUNDAMENTS OF ELEMENTARY MATHEMATICS III****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn concepts and teaching techniques used in elementary school mathematics. Concept covered Euclidean geometry, translations, tessellations, and symmetry groups. **Prerequisite:** MTH 95 with a grade of "C," "P" or better, or instructor approval. Courses do not have to be taken in sequence.

**MTH 243****INTRODUCTION TO PROBABILITY AND STATISTICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate their knowledge of descriptive statistics by the collection, summarization, and analysis of data and the use of current technology. For students majoring in the arts, sciences and business programs. **Prerequisite:** MTH 111 with a "C" grade or better, or instructor approval.

**MTH 244****INTRODUCTION TO PROBABILITY AND STATISTICS****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students demonstrate their knowledge of descriptive and inferential statistics through the use of basic one- and two-sample inferential techniques and current technology. For students majoring in the arts, sciences and business programs that require two terms of statistics. **Prerequisite:** MTH 243 with a "C" grade or better.

**MTH 251****CALCULUS I****(5.00 Lecture Hrs./Wk.)****5 Credits**

Students learn differentiation using graphical, numerical, and analytical approaches. Students will read, understand and discuss applied differential calculus concepts. Students will utilize graphing programmable calculators and computer technology. **Prerequisite:** MTH 112 with of "C" grade or better.

**MTH 252****CALCULUS II****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students read, understand, and discuss applied integral calculus concepts. Students will deepen their understanding of Riemann sums and apply that knowledge in the development of definite integrals and the Fundamental Theorem of Calculus. Students will learn additional integration techniques. Students will utilize graphing programmable calculators. **Prerequisite:** MTH 251 with "C" grade or better.

**MTH 253****CALCULUS III****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students continue to learn new integration techniques using graphical, numerical, and analytical approaches. Students will apply their knowledge of differentiation and integration in mathematical modeling and other applications. Students will investigate series and sequences. Graphing technology will be used. **Prerequisite:** MTH 252 with "C" grade or better.

**MUP MUS MUSIC**

**MUP 180**  
**INDIVIDUAL LESSONS - GUITAR**  
 (.50 Lecture, 6.00 Lab Hrs./Wk.) **2 Credits**  
 Students take individual instruction in beginning guitar. **Note:** No more than 12 credits on a primary instrument and six credits on a secondary instrument of individual lessons numbered MUP 171-192 and 271-292 may be applied to an associate degree.

**MUP 280**  
**INDIVIDUAL LESSONS - GUITAR**  
 (.50 Lecture, 6.00 Lab Hrs./Wk.) **2 Credits**  
 Individual instruction in advanced guitar. **Note:** No more than 12 credits on a primary instrument and six credits on a secondary instrument of individual lessons numbered MUP 171-192 and 271-292 may be applied to an associate degree.

**MUS 105**  
**MUSIC APPRECIATION**  
 (3.00 Lecture Hrs./Wk.) **3 Credits**  
 Students briefly study the elements of music, then examine the major historical music eras including contemporary musical theatre, popular music, and non-western music. Includes significant art music composers and compositions from those eras.

**MUS 134**  
**GROUP VOICE - BEGINNING**  
 (2.00 Lecture Hrs./Wk.) **2 Credits**  
 Students learn techniques of chorale singing through participation in the North Coast Chorale. **Prerequisite:** Instructor permission required.

**MUS 142**  
**GROUP WOODWIND - BEGINNING**  
 (2.00 Lecture Hrs./Wk.) **2 Credits**  
 Students learn techniques of ensemble woodwind performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required.

**MUS 143**  
**GROUP WOODWIND - INTERMEDIATE**  
 (2.00 Lecture Hrs./Wk.) **2 Credits**  
 Students learn techniques of ensemble woodwind performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required.

**MUS 144**  
**GROUP BRASS - BEGINNING**  
 (2.00 Lecture Hrs./Wk.) **2 Credits**  
 Students learn techniques of ensemble brass performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required.

**MUS 145**  
**GROUP BRASS - INTERMEDIATE**  
 (2.00 Lecture Hrs./Wk.) **2 Credits**  
 Students learn techniques of ensemble brass performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required.

**MUS 147**  
**GROUP PERCUSSION - BEGINNING**  
 (2.00 Lecture Hrs./Wk.) **2 Credits**  
 Students learn techniques of ensemble percussion performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required.

**MUS 148**  
**GROUP PERCUSSION - INTERMEDIATE**  
 (2.00 Lecture Hrs./Wk.) **2 Credits**  
 Students learn techniques of ensemble percussion performance through participation in the North Coast Symphonic Band. **Prerequisite:** Instructor permission required.

**NFM NUTRITION & FOOD MANAGEMENT**

**NFM 225**  
**HUMAN NUTRITION**  
 (4.00 Lecture Hrs./Wk.) **4 Credits**  
 Students develop an understanding of nutrients, their functions, food sources, effects of deficiency, recommended dietary allowances, assessment of nutritional status, practical human nutrition, and nutritional controversies including food fads and fallacies. **Prerequisite:** None, general understanding of chemistry and human anatomy and physiology strongly recommended.

**NUR NURSING**

**NUR 050 and 050L**  
**BASIC NURSING SKILLS**  
 (11 Lecture and 33 Lab Hrs. Total) **2 Credits**  
 Students learn specific nursing procedures that meet the common daily needs of the individual in a hospital or extended care setting. Students will develop an understanding of and use core concepts including caring, holistic health, and professional behaviors. Major concepts including asepsis, safety, confidentiality and appropriate communication are learned. Students will practice in the nursing skills laboratory and in selected clinical experiences. **Prerequisite:** Admission into Nursing Program. **Co-requisite:** NUR 050 with NUR 050L.

**NUR 060**  
**NURSING SEMINAR**  
**(1.00 Lecture Hr./Wk.)** **1 Credit**  
 Nursing students improve their study skills and enhance learning by recognizing alternative learning styles and methods, organizing for effective study, and preparing for testing. **Prerequisite:** Acceptance into Nursing Program.

**NUR 080A**  
**CERTIFIED NURSING ASSISTANT-PART A**  
**(20.00 Lecture and 30.00 Lab Hrs Total)** **3 Credits**  
 Students acquire, demonstrate and deliver routine patient care to residents of long term care and other facilities. This course includes instruction in basic bedside nursing skills, restorative services, mental health and social needs as well as personal care skills and patient rights. Students will be given an introduction to anatomy and physiology. This is the first of three classes that prepares students to be certified as a nursing assistant in the state of Oregon. This course meets the requirements of the Oregon State Board of Nursing for certification as a nursing assistant.

**NUR 080B**  
**CERTIFIED NURSING ASSISTANT-PART B**  
**(20.00 Lecture and 30.00 Lab Hrs Total)** **3 Credits**  
 Students acquire, demonstrate and deliver routine patient care to residents of long term care and other facilities. This course includes instruction in basic bedside nursing skills, restorative services, mental health and social needs as well as personal care skills and patient rights. Students will be given an introduction to anatomy and physiology. This is the second of three classes that prepares students to be certified as a nursing assistant in the state of Oregon. This course meets the requirements of the Oregon State Board of Nursing for certification as a nursing assistant. **Prerequisite:** Successful completion of NUR 080A.

**NUR 080C**  
**CERTIFIED NURSING ASSISTANT-PART C**  
**(90.00 Lab Hrs Total)** **3 Credits**  
 Students will complete a minimum of 75 hours of clinical experience in a long term care facility. Students will deliver routine patient care to residents within the scope of practice of a nursing assistant. Included in this care is basic bedside nursing skills, restorative services, mental health, social needs, personal care, and patient rights. Students will participate in pre and post conferences to share experiences, problem solve, and answer questions. Third of a three-part series. **Prerequisite:** Successful completion of NUR 080 Parts A and B within the previous 12 months. Before starting clinicals, students must: 1) complete of theory portion of course with passing grade of C or higher (must pass final exam with a 75% or higher); 2) satisfactorily complete lab/clinical skills; 3) submit to a criminal background check; 4) provide documentation of current immunization status as per health occupations department policy; and 5) provide documentation of current CPR certification.

**NUR 101 and NUR 101L**  
**NURSING: FOUNDATIONS OF CARE**  
**(5.00 Lecture, 9.00 Lab Hrs./Wk.)** **8 Credits**  
 Students are introduced to nursing concepts and foundations of professional nursing practice. Explores health promotion across the lifespan. The student learns and delivers basic nursing care in a variety of settings. This course includes classroom and clinical learning experiences. **Prerequisite:** Acceptance into the nursing program; satisfactory completion of a certified nursing assistant (CNA) course or NUR 50; current CPR certification; evidence of hepatitis B and measles immunizations (or signed waiver) and a TB test within the past 3 months. Concurrent registration in or satisfactory completion of MTH 95 Intermediate Algebra or higher. **Co-requisite:** NUR 101 with NUR 101L.

**NUR 102 and NUR 102L**  
**NURSING: FOCUS ON INDIVIDUALS**  
**(5.00 Lecture, 12.00 Lab Hrs./Wk.)** **9 Credits**  
 Building on concepts and skills learned in NUR 101, students learn the knowledge and skills needed to care for individuals with select acute and chronic health care problems. Focuses on the care of individuals requiring surgical intervention and individuals with disorders of the respiratory, cardiovascular, gastrointestinal, urinary, and endocrine systems. This course includes classroom and clinical learning experiences. **Prerequisite:** NUR 101 with a "C" grade or better. **Co-requisite:** NUR 102 with NUR 102L.

**NUR 103 and NUR 103L**  
**NURSING: FOCUS ON FAMILIES**  
**(5.00 Lecture, 12.00 Lab Hrs./Wk.)** **9 Credits**  
 Building on concepts and skills learned in NUR 102, students learn the knowledge and skills needed to care for individuals with select acute and chronic health care problems. Focuses on the care of individuals with disorders of fluids, electrolytes, hematologic, immune, musculoskeletal, neurologic, and reproductive disorders. This class also provides students with knowledge and skills needed to care for clients across the continuum of life to include birth and death. Provides the student with the essential components of transition to practice as an LPN. This course includes classroom and clinical learning experiences. **Prerequisite:** NUR 102, NUR 112 with "C" grade or better. **Co-requisite:** NUR 103 with NUR 103L.

**NUR 105**  
**FOUNDATIONS OF PHARMACOLOGY FOR NURSES**  
**(1.00 Lecture Hr./Wk.)** **1 Credit**  
 Nursing students are introduced to the basic principles of pharmacology as they apply to the safe administration of pharmacologic agents to clients in the health care setting. Students acquire knowledge of principles of drug therapy, pharmacodynamics and pharmacokinetics, variables affecting client response to drug therapy, and application of the nursing process in administration of medications to clients. **Prerequisite:** Acceptance into the Nursing Program; **Co-requisite:** NUR 101.



**NUR 109 and NUR 109L****NURSING: FOCUS ON MENTAL HEALTH****(24 Lecture and 64 Lab Hrs. Total)****4 Credits**

Students prepare to provide nursing care for clients with mental health or psychiatric disorders in an inpatient setting. Students incorporate the following functional health patterns in providing care: health perception/health management; cognitive/perceptual; self perception/self concept; role/relationship; and coping/stress tolerance. Students use the concepts of caring, holistic health, critical thinking, and professional behaviors in the mental health setting. **Prerequisite:** NUR 103 with a "C" grade or better. **Co-requisite:** NUR 109 with NUR 109L.

**NUR 111****NURSING CONCEPTS AND CLINICAL PRACTICE****(12 Lec/6 Lab Hrs/1Cr; 12 Lec/20 Lab Hrs/2Cr; 20 Lec/30 Lab Hrs/3Cr)****1-3 Credits**

Students are introduced to fundamental concepts of the Clatsop Community College nursing curriculum and reviews previously learned information and skills for students who have previous nursing education (i.e., advanced placement students into the Nursing Program). **Prerequisite:** Advanced placement admission to the nursing program (admission at any point beyond NUR 101).

**NUR 112****COLLABORATIVE PRACTICE I: PHARMACOLOGY****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students acquire and demonstrate knowledge of pharmacology and the role of the nurse in administering and monitoring use of medications and natural products to clients. Learners identify nursing roles and responsibilities in caring for clients receiving pain medications, hypoglycemic agents, drugs affecting the endocrine, respiratory, cardiovascular systems, and medications used to treat GI disorders. **Prerequisite:** Acceptance into the nursing program and completion of NUR 101 with a C grade or higher; completion of MTH 65 or MTH 95 with a grade of "C", "P", or a higher Math course with a "C" grade or higher. **Co-requisite:** NUR 102.

**NUR 113****COLLABORATIVE PRACTICE II: PATHOPHYSIOLOGY & PHARMACOLOGY****(1.00 Lecture Hr./Wk.)****1 Credit**

Students acquire knowledge of pathophysiology and pharmacology that they can apply to the nursing role. Students identify nursing roles and responsibilities in administering medications to treat selected conditions. **Prerequisite:** Completion of NUR 102 and NUR 112 with a C grade or higher or instructor permission. **Co-requisite:** NUR 103 or instructor permission.

**NUR 115A****RESEARCH & WRITING FOR NURSING****(1 Lecture Hr./Wk)****1 Credit**

Students develop strategies and skills necessary for success in the nursing program in the following areas: research and writing for the health profession, study and test taking strategies, math strategies for safe medication administration, workplace and study skills, coping and self-care strategies, and time management. **Prerequisite:** Acceptance into the Nursing Program.

**NUR 115B****PHYSICAL ASSESSMENT, PART I****(20 Lecture/Lab Hrs. Total)****1 Credit**

Students review principles and techniques of physical assessment for the practicing nurse or nursing student. Part one of a two-part course. Each section will include a review of related anatomy and physiology; principles, techniques, and practice of physical examination; and common changes from the norm. Students should be able to perform a completed history and physical examination in an organized, systematic manner by the end of the course. **Prerequisite:** Acceptance into the Nursing Program.

**NUR 115C****PHYSICAL ASSESSMENT, PART II****(20 Lecture/Lab Hrs. Total)****1 Credit**

Students learn the knowledge and skills needed to perform a comprehensive physical assessment. Part 2 of a two-part course. Reviews principles and techniques of physical assessment for the nursing student. Each section will include a review of related anatomy and physiology, principles, techniques, and practice of physical examination; and common changes from the norm. Students should be able to perform a complete history and physical examination in an organized, systematic manner by the end of the course. **Prerequisite:** Acceptance into the Nursing Program.

**NUR 201 and NUR 201L****NURSING: CLIENTS IN CRISIS****(4.00 Lecture, 12.00 Lab Hrs./Wk.)****8 Credits**

The developing professional nurse applies functional health patterns in caring for clients with acute and/or critical problems in the hospital setting, including critical care settings. Students learn and use complex psychomotor skills and incorporate core concepts into practice. This course continues to build on previously learned concepts and skills. **Prerequisite:** Satisfactory completion of NUR 109 and all first year nursing program course requirements with a "C" grade or better. Current health provider CPR certification. Completion of hepatitis B series or signed waiver; TB test within the past 12 months. **Co-requisite:** NUR 201 with NUR 201L.

**NUR 202 and NUR 202L**

**NURSING: FAMILIES IN CRISIS**

(5.00 Lecture, 12.00 Lab Hrs./Wk.)

**9 Credits**

Students learn and apply the knowledge and skills necessary to provide holistic care to clients and families experiencing a health related crisis such as a critical illness, an exacerbation of a chronic illness or an end-stage disease. This course continues to build on previously learned concepts and skills. Students utilize the nursing process and functional health patterns to provide care for clients with complex health issues. **Prerequisite:** Completion of NUR 201 and NUR 231 with a C grade or higher. **Co-requisite:** NUR 202 with NUR 202L.

**NUR 208 and NUR 208L**

**NURSING: TRANSITION INTO PRACTICE**

(4.00 Lecture/ 12.00 Lab Hrs./Wk.)

**8 Credits**

Students prepare for the transition from nursing student to registered nurse. This class continues to build on concepts and skills learned in the previous terms. Students apply learned skills and concepts, providing client care in a community or institutional setting under the guidance of a nurse preceptor. Students have opportunities to learn and apply the knowledge and skills needed to address health issues that have an impact on the community. Students plan and participate in a community health project and explore community resources. Students also explore integrative therapies. **Prerequisite:** Completion of NUR 202 and NUR 232 with a grade of C or higher. **Co-requisite:** NUR 208 with NUR 208L.

**NUR 231**

**COLLABORATIVE PRACTICE III: PATHOPHYSIOLOGY & PHARMACOLOGY**

(2.00 Lecture Hrs./Wk.)

**2 Credits**

Students acquire knowledge of pathophysiology and pharmacology that they can apply to the nursing role. Learners demonstrate an increasing understanding of complications of diabetes mellitus, cardiovascular disease, acute and chronic respiratory diseases, and trauma on clients. Students identify nursing roles and responsibilities in administering selected medications to acutely and chronically ill clients. **Prerequisite:** Completion of all first year nursing program course requirements with a grade of C or better. **Co-requisite:** NUR 201.

**NUR 232**

**COLLABORATIVE PRACTICE IV: PATHOPHYSIOLOGY & PHARMACOLOGY**

(2.00 Lecture Hrs./Wk.)

**2 Credits**

Students acquire knowledge of pathophysiology and pharmacologic treatment of selected conditions that they can apply to the nursing role. Learners demonstrate an understanding of the effects of HIV infection and its complications on the client and current drug therapies for treatment of HIV infection. Students identify the basic pathophysiology of cancer and demonstrate an understanding of chemotherapeutic drugs. Students identify pathophysiological changes that occur with tuberculosis, and nursing responsibilities when caring for this client and administering antimycobacterials. **Prerequisite:** Completion of NUR 201 and NUR 231 with a grade of C or better; **Co-requisite:** concurrent enrollment in NUR 202.

**OA OFFICE ADMINISTRATION**

**OA 104**

**ENGLISH FOR BUSINESS**

(4.00 Lecture Hrs./Wk.)

**4 Credits**

Students improve their skill in grammar, spelling, vocabulary, punctuation, and the use of reference sources and electronic aids. **Prerequisite:** Score of 42+ on the COMPASS Writing placement test, or instructor approval.

**OA 116**

**OFFICE PROCEDURES**

(4.00 Lecture Hrs./Wk.)

**4 Credits**

Students become proficient in procedures of office work including business communication skills, office management and support duties, and human relations skills. **Prerequisite:** COMPASS Reading placement test score of 42+ or instructor approval. Recommended 30 words a minute or more keying.

**OA 120**

**COMPUTER KEYBOARDING**

(2.00 Lecture/Lab Hrs./Wk.)

**1 Credit**

Students develop basic keyboarding techniques using a computer terminal. Applicable to all disciplines. **Prerequisite:** COMPASS Reading placement test score of 42+ or instructor approval. English language and reading skills.

**OA 121**

**KEYBOARDING I**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students develop skill in keyboarding techniques, proofreading, and machine composition. They acquire skill in producing simple letters, reports, and memorandums. **Note:** Students are placed in keyboarding classes according to their demonstrated proficiency. **Prerequisite:** COMPASS Reading placement test score of 44+ or instructor approval. English language and reading skills.

**OA 124**

**KEYBOARDING SKILL BUILDING**

(6.00 Lecture/Lab Hrs./Wk.)

**3 Credits**

Students identify and correct keyboarding problems, develop overall keyboarding skill, and evaluate skill development progress. **Prerequisite:** Recommended OA 120, OA 121, or keying of at least 20 words a minute.

**OA 126**

**OFFICE SKILLS FOR THE MEDICAL SETTING**

(4.00 Lecture Hrs./Wk.)

**4 Credits**

Students will become experienced in the areas of entry level office procedures such as telephone techniques including etiquette, patient scheduling, office organization, office communication, the use of office machinery such as faxes and multi-line phones while providing for patient privacy and confidentiality. In addition an introduction to computer systems, software and billing, coding and insurance procedures will be explored.

**OA 131****10-KEY SKILL BUILDING****(2.00 Lecture/Lab Hrs./Wk.)****1 Credit**

Students develop speed and accuracy using the 10-key numerical keypad. **Prerequisite:** English language and reading skills.

**OA 142****MEDICAL TRANSCRIPTION****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students review and apply their knowledge of medical terminology through simulated transcription of medical correspondence and reports. **Prerequisite:** OA 121, OA 201, and OA 225 or instructor approval.

**OA 201****WORD-PROCESSING PROCEDURES I****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students develop word-processing knowledge and skills necessary for using microcomputers and Windows software to prepare and edit documents. **Prerequisite:** Touch keyboarding skills are recommended.

**OA 202****WORD-PROCESSING PROCEDURES II****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students increase their proficiency in using word-processing; develop skill in using advanced-level functions, practice desktop publishing operations and detailed office-style formatting. **Prerequisite:** OA 201.

**OA 205****DESKTOP PUBLISHING****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students develop skill in using desktop publishing software to create newsletters, brochures, business cards, etc. for course work, professional purposes, and personal use. **Prerequisite:** OA 201 or MIC 145.

**OA 225****MACHINE TRANSCRIPTION****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students demonstrate skill in using transcribing equipment in rough-draft, memorandum, and letter formats. They become proficient in proofreading and editing copy. **Prerequisite:** OA 121 and OA 201 or instructor approval.

**OA 240****FILING AND RECORDS MANAGEMENT****(6.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students develop competence in basic filing rules, proficiency in setting up manual filing systems, and an understanding of the overall records management function in both small and large businesses. **Prerequisite:** CSD 122 or instructor approval.

**OA 295****OFFICE SYSTEMS DIRECTED PROJECT****(2.00 Lecture & 6.00 Lab Hrs./Wk.)****4 Credits**

Students build on knowledge gained in other courses and use critical thinking and problem solving skills to address a significant problem in their area of specialization. Students complete a comprehensive project and make a professional presentation. This is the capstone course for the Office Systems program. **Prerequisite:** Completion of all but the last quarter of program course work.

**PE PHYSICAL EDUCATION**

*No more than six credits of PE 185 earned in different activities at different levels may be applied to an associate degree.*

**PE 185AA****AEROBIC EXERCISE - BEGINNING****(3.00 Lab Hrs./Wk.)****1 Credit**

Students learn and participate in a variety of aerobic exercises designed to increase the strength and capacity of the cardiovascular system. Students will be instructed in and execute heart rate monitoring, proper warm-up and cool down techniques, and participate in other exercises that compliment aerobic exercise.

**PE 185AB****AEROBIC EXERCISE - INTERMEDIATE****(3.00 Lab Hrs./Wk.)****1 Credit**

Students continue to participate in activities and develop benefits acquired in the PE 185 Aerobic Exercise-Beginning. Students will continue to participate in different aerobic activities that increase cardiovascular strength and develop a clear understanding in the importance of including aerobic exercise into a healthy lifestyle. **Prerequisite:** PE 185AA Aerobic Exercise-Beginning.

**PE 185BA****BASKETBALL - BEGINNING****(3.00 Lab Hrs./Wk.)****1 Credit**

Students learn and practice skills related to the game of basketball. Provides sufficient skills and knowledge to serve the student's recreational interest as a player or spectator.

**PE 185BB****BASKETBALL - INTERMEDIATE****(3.00 Lab Hrs./Wk.)****1 Credit**

Students develop and practice beginning and more advanced basketball skills. Advanced offensive and defensive concepts and patterns of the game will be introduced and practiced. **Prerequisite:** PE 185BA Basketball-Beginning.

**PE 185CA**  
**CROSS TRAINING FOR FITNESS - BEGINNING**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students combine different components of sports and recreational activities along with fitness components producing a workout that will enhance one's cardiovascular fitness as well as agility, speed, strength, balance, and flexibility. This class includes components of kickboxing, plyometrics, martial arts, aerobic conditioning, yoga, strength training and other activities related to fitness, recreation, and sports. **Prerequisite:** Good physical condition which may require doctor's approval when necessary.

**PE 185CB**  
**CROSS TRAINING FOR FITNESS - INTERMEDIATE**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students combine different components of sports and recreational activities along with fitness components will be combined to produce a workout that will continue to enhance one's cardiovascular fitness as well as agility, speed, strength, balance, coordination, and flexibility. This class includes components of kickboxing, plyometrics, martial arts, strength training, aerobic conditioning, yoga, and other activities related to fitness, recreation, and sports. **Prerequisite:** PE 185CA Cross Training for Fitness – Beginning.

**PE 185HA**  
**HATHA YOGA - BEGINNING**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students practice the yoga of physical well-being, emphasizing breathing techniques and the development of a strong, flexible, relaxed and well-toned body.

**PE 185HB**  
**HATHA YOGA - INTERMEDIATE**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students practice the basic techniques of Hatha Yoga and understand its philosophy as related to western culture. **Prerequisite:** PE 185HA Hatha Yoga-Beginning or instructor approval.

**PE 185PA**  
**PERSONAL FITNESS BEGINNING**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students develop and actively participate in an individualized fitness program emphasizing cardiovascular fitness, muscular strength, endurance, and flexibility.

**PE 185PB**  
**PERSONAL FITNESS INTERMEDIATE**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students develop and actively participate in an individualized conditioning program emphasizing cardiovascular fitness, muscular strength, endurance, and flexibility. They receive information on weight control and nutrition. **Prerequisite:** PE 185PA Personal Fitness-Beginning or instructor approval.

**PE 185PC**  
**PILATES BEGINNING**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students participate in a specific series of exercises, known as Pilates, done in a certain sequence while lying on a mat. The exercises are designed to promote a balanced musculoskeletal system, resulting in core strength, flexibility, good posture and improved body awareness.

**PE 185PD**  
**PILATES INTERMEDIATE**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students participate in a specific series of exercises, known as Pilates, done in a certain sequence while lying on a mat. The exercises are designed to promote a balanced musculoskeletal system, resulting in core strength, flexibility, good posture and improved body awareness. Students will further there Pilates practice by practicing more advanced and difficult exercises. **Prerequisite:** PE 185PC Pilates-Beginning or instructor approval.

**PE 185TA**  
**TENNIS - BEGINNING**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students learn the basic skills, strategy, and rules needed to play the game of tennis at a satisfactory recreational level.

**PE 185TB**  
**TENNIS INTERMEDIATE**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students develop and apply more advance skills and strategies needed to play the game of tennis at an advanced recreational level. **Prerequisite:** PE 185TA Tennis-Beginning.

**PE 185VA**  
**VOLLEYBALL BEGINNING**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students develop and apply the fundamental skills, strategies, rules, and etiquette of volleyball.

**PE 185VB**  
**VOLLEYBALL INTERMEDIATE**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students improve volleyball skills, develop team play and strategies and acquire advanced individual and team skills and techniques. **Prerequisite:** PE 185 VA Volleyball Beginning or instructor approval.

**PE 185WA**  
**WEIGHT TRAINING BEGINNING**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students engage in various methods of weight training which emphasize progressive strength training and lifetime fitness.

**PE 185WB**  
**WEIGHT TRAINING INTERMEDIATE**  
**(3.00 Lab Hrs./Wk.)** **1 Credit**  
 Students engage in various methods of weight training which emphasize lifetime fitness. Students will continue to execute plans and training methods toward personal workout goals. **Prerequisite:** PE 185WA Weight Training-Beginning or instructor approval.

**PH PHYSICS****PH 201****GENERAL PHYSICS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students develop a general knowledge of physics from mechanics to nuclear physics, particularly the law of conservation of energy and how it relates to humans in every day life. **Prerequisite:** MTH 95.

**PH 202****GENERAL PHYSICS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students utilize direct inquiry, discussion with peers, and a microcomputer to take the role of a physicist. Students develop mathematical descriptions of mechanical motion. **Prerequisite:** Completion of or concurrent enrollment in MTH 111.

**PH 203****GENERAL PHYSICS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students utilize direct inquiry, discussion with peers, and a microcomputer, to take the role of the physicist. Students develop mathematical descriptions of rotational motion, thermodynamics, and electric current. **Prerequisite:** PH 202.

**PH 211****GENERAL PHYSICS WITH CALCULUS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students utilize direct inquiry, discussion with peers, and a computer to take the role of a physicist: observing, acquiring data, and analyzing results rapidly and accurately. Students develop mathematical descriptions of mechanical motion. This sequence is for students planning further study in science or engineering. **Prerequisite:** Completion of, or concurrent enrollment in MTH 251.

**PH 212****GENERAL PHYSICS WITH CALCULUS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students utilize direct inquiry, discussion with peers, and a computer to develop mathematical descriptions for mechanical energy, rotational motion and electricity. **Prerequisite:** PH 211.

**PH 213****GENERAL PHYSICS WITH CALCULUS****(4.00 Lecture, 3.00 Lab Hrs./Wk.)****5 Credits**

Students utilize direct inquiry, discussion with peers, and a computer to develop mathematical descriptions for electricity, magnetism and thermodynamics. **Prerequisite:** PH 212.

**PHL PHILOSOPHY****PHL 101****PHILOSOPHICAL PROBLEMS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn to use philosophy as a discipline to apply to all human experience and knowledge, and understand the philosophical questions that have focused human speculation about reality, humanity, the mind and the self throughout human history.

**PHL 102****ETHICS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop an understanding of key ethical problems that have confronted mankind across cultures and times, ethical codes used to resolve them, and how these can be applied to current social issues.

**PHL 103****CRITICAL REASONING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop concepts and tools for rational analysis and creative thinking, and learn to assess habits of mind that lead to shallow and fallacious thinking.

**♦ PHL 208****POLITICAL PHILOSOPHY****(3.00 Lecture Hrs./Wk.)****3 Credits**

This introductory course in modern political philosophy is a survey of the major modern political theorists, from Hobbes and Locke to Marx and Rawls, and explores such ideas as liberalism, libertarianism, Marxism, communitarianism, citizenship, multiculturalism and feminism.

**PS POLITICAL SCIENCE****PS 201****AMERICAN GOVERNMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine the basic background of American traditions of Government and the American Constitution. Topics of special interest include: the Constitution, the Bill of Rights, political culture, interest groups, political parties, public opinion, politics, campaigns, and elections.

**PS 202****AMERICAN GOVERNMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine the basic policy-making institutions of government, the rights and liberties of individuals, and politics of national policy.

**PS 203**  
**STATE AND LOCAL GOVERNMENT**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students examine the basic policy-making institutions of local and state government. Students will participate with visitation by state/local political leaders and also attend and evaluate public meetings.

**PS 205**  
**INTERNATIONAL POLITICS**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students study ten major issues of the global community, including American foreign policy, and the nature of relations between nations—specifically contemporary international issues; nationalism, economic rivalries, and quest for security; and the problem of international cooperation, changing threats to security in the post-Cold War era, and the increasing importance of economic competition.

**PSY PSYCHOLOGY**

**PSY 101**  
**PSYCHOLOGY OF HUMAN RELATIONS**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students learn to apply scientific knowledge from psychology to improve relationships with self and others. This course includes self-exploration and practice of interpersonal skills.

**PSY 190**  
**STRESS THEORY AND MANAGEMENT**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students develop a basic theoretical understanding of the bio-psychology of stress, psycho-social factors contributing to stress, and strategies that reduce stress responses.

**PSY 201**  
**GENERAL PSYCHOLOGY**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students learn the historical and contemporary schools of psychology and foundational psychologists, research methods used in psychology, the biological bases of behavior, human development, sensation and perception, with application to human problems. Strong reading and writing skills are recommended.

**PSY 202**  
**GENERAL PSYCHOLOGY**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students learn about states of consciousness, learning, memory, cognition, motivation and emotion. Strong reading and writing skills are recommended. **Prerequisite:** WR 121 level writing skills (COMPASS writing score of 101+).

**PSY 203**  
**GENERAL PSYCHOLOGY**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students develop an understanding of personality, stress disorders, psychological disorders, approaches to treatment, and social/organizational psychology. Strong reading and writing skills are recommended. **Prerequisite:** WR 121 level writing skills (COMPASS writing score of 101+).

**PSY 215**  
**INTRODUCTION TO DEVELOPMENTAL PSYCHOLOGY**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students gain knowledge of human development from conception to old age, with emphasis on the personality and social issues, brain and cognitive changes over the life span. **Prerequisite:** PSY 201, 202 or 203 strongly recommended.

**PSY 216**  
**SOCIAL PSYCHOLOGY**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students review classic and contemporary research studies on the impact of social structures on individual behaviors and mental processes. Major topics include conformity, obedience, cognitive dissonance, attribution theory, the bystander effect, and social exchange theory.

**PSY 219**  
**INTRODUCTION TO ABNORMAL PSYCHOLOGY**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students develop a basic understanding of the etiology, diagnosis and treatment of emotional, mental, and behavioral disorders, based on current scientific and professional definitions and standards. **Prerequisite:** PSY 201 strongly recommended.

**PSY 231**  
**INTRODUCTION TO HUMAN SEXUALITY**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students acquire knowledge of the psychological, social, and biological aspects of human sexual functioning. Emphasis is on sex research, sexual responses and behaviors, and the cultural, gender and sex orientation differences in behaviors, communication styles and attitudes. **Prerequisite:** PSY 201 strongly recommended.

**R RELIGION**

**R 201**  
**GREAT RELIGIONS OF THE WORLD**  
**(3.00 Lecture Hrs./Wk.)** **3 Credits**  
 Students develop an understanding of Joseph Campbell's perspective on myths and world religions, as well as the philosophy of religion, and of early religion, American Native religion, Egyptian religion, the goddess in religion, and Hinduism.

**R 202****GREAT RELIGIONS OF THE WORLD****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop knowledge of Joseph Campbell's perspective on myths and world religions, as well as knowledge of philosophy of religion, and of Buddhism, Yoga, Tibetan Buddhism, Taoism, and Confucianism.

**R 203****GREAT RELIGIONS OF THE WORLD****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop knowledge of Joseph Campbell's perspective on myths and world religions, the philosophy of religion, and of Zoroastrianism, Judaism, Greek mystery religions, Christianity, the spiritual dimension of Arthurian romances, and Islam.

**SET****SUSTAINABLE ENERGY TECHNOLOGY****SET 102****INTRODUCTION TO SUSTAINABILITY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn the principles, concepts, and technology associated with efficient production of usable energy based on alternative resources including power production by wave energy, wind energy, solar energy, hydrogen-fuel devices, and other emerging alternative fuel systems.

**SET 105****GREEN INDUSTRIAL SAFETY****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn the essential skills needed to develop and maintain safe work habits in various industrial workplaces following OR-OSHA guidelines, including general accident prevention. Students demonstrate safe use of tools/equipment commonly found in a variety of manufacturing and construction industries. Emphasis will be put on safety procedures leading to sustainable practices and results.

**SET 106****APPLICATIONS OF ALTERNATIVE ENERGY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students gain understanding of hydrogen production, pyrolysis (producing oil and gas from garbage and heat), bio-diesel production, wind turbines, geothermal power, solar power, conventional and fixed-plate methane digesters, bio-mass fuel, Sterling engines, "rocket stoves," ethanol distillation, and several other emerging and experimental types of energy production. A philosophical overview and discussion of Javon's Paradox will be given as well.

**SET 110****ENERGY AND THE ENVIRONMENT****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn the background of mankind's use of energy. Various forms of energy are analyzed for availability and long term environmental impact. Students learn environmental sustainability, with an emphasis on energy efficiency and renewable energy practices. Current news and developments pertaining to energy will be monitored.

**SET 115****SUSTAINABLE ENERGY WORKPLACE COMMUNICATIONS****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students will practice small group communication by participation in group discussions, readings, and written exercises. Attention to organization and conduct of problem-solving groups and learning. Emphasis is on, (1) learning how to enhance group communication, to deal effectively with conflict and to apply problem-solving techniques and (2) developing attitudes and skills applicable to leadership and successful participation in the workplace

**SET 120****BASIC HYDRAULICS****(2.00 Lecture, 2.00 Lecture/Lab Hrs./Wk.)****3 Credits**

Students learn basic principles of pneumatic and hydraulic systems applicable to sustainable energy production. Students learn to read, interpret, and construct fluid systems schematic diagrams containing pneumatic and hydraulic component symbols.

**SET 121****MECHANICAL POWER I****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students perform common mechanical tasks, and learn to fine tune drive systems involving belts, chains, etc. Emphasis is on operations to reduce friction and wasted motion, which are major contributors to energy inefficiency. The focus of this course is current directions and trends in mechanical design and engineering. \*In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card.

**SET 130****HVACR SYSTEMS OPERATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

This course is part of a program to meet the requirements of the Oregon Green Tech Certificate. Students will learn the concepts of the basic operations of various heating and cooling systems for commercial and residential applications. This course focuses on maintenance and service procedure for initial tuning of HVACR systems for energy efficiency. Practical application of skills include: taking pressures, identifying refrigerants, recovering and recycling refrigerant, evacuating and charging refrigeration systems. Also included are all applicable safety precautions and EPA governed environmental regulations. Energy efficiency will be emphasized.

**SET • SOC • SP****SET 135****PREDICTIVE AND PREVENTATIVE MAINTENANCE****(2.00 Lecture Hrs./Wk.)****2 Credits**

This course will involve skill development in advanced mechanical maintenance procedures. The student will design, construct, and maintain industrial energy transfer systems. Techniques in preventative and predictive maintenance operations, utilizing the applications of laser alignment, thermography, vibration analysis, and other functions will also be covered.

**SET 140****SUSTAINABLE ENERGY CUSTOMER SERVICE****(3.00 Lecture Hrs./Wk.)****3 Credits**

This course is designed to enable students look at many factors that influence human behavior. The intent of this course is to help students increase their ability to handle interpersonal conflicts effectively at work and in your personal lives.

**SET 158****BUILDING ENERGY ANALYSIS****(2.00 Lecture Hrs./Wk.)****2 Credits**

Students learn how to use diagnostic equipment to analyze the effectiveness of the building systems to maximize energy performance, comfort, efficiency, safety and durability. Students will learn about using the HVAC ducting and digital control (DDC system as an aid in troubleshooting and promoting energy efficiency, and indoor air quality. \*In order to legally do electrical wiring and some types of electrical troubleshooting, the State of Oregon requires that a person hold an appropriate Electrical License or Electrical Apprentice Card.

**SOC 210****MARRIAGE, FAMILY & INTIMATE RELATIONS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine intimate relationships, courtship, marriage, and family patterns; address how relationships are built, maintained, changed, and terminated; and consider the influence of intimacy, marriage and family on human development.

**SOC 221****JUVENILE DELINQUENCY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study the nature and extent of delinquency; the major criminological theories regarding delinquency; the role of society in delinquency; the role of gender, race/ethnicity and social institutions on delinquency; and, the impact of delinquency on society.

**♦ SOC 225****GLOBAL ISSUES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students investigate problems associated with increased globalization and transnational processes. Topics vary and may include: gaps between wealthy and poor nations; economic realignments associated with neoliberal economic policies and transnational supply chains; violence in the forms of warfare, terrorism, and transnational crime; drug and human trafficking; the causes and effects of transnational migration; the future of indigenous cultures around the world; environmental issues, consumption, and resource scarcity; drug and human trafficking; and failed states, ethno-nationalism, and genocide.

**SOC****SOCIOLOGY****♦ SOC 204****INTRODUCTION TO SOCIOLOGY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students become familiar with the terms, concepts, methods, and theories employed by sociologists. The fundamentals of sociological inquiry are explored through investigations of group formation and dynamics, culture and enculturation, social norms and deviance, class and social stratification, and identity as expressed through race, ethnicity, gender, and age.

**♦ SOC 205****SOCIAL ISSUES****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students examine sociological principles while discussing current issues relevant to sociology. The course will focus on topics such as bias and discrimination based on race, ethnicity, and gender; the role of religion in society, the effects of globalization, and the question of individual agency in relation to social forces.

**SP****SPEECH****♦ SP 111****FUNDAMENTALS OF PUBLIC SPEAKING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students practice public communication skills both as presenters and as involved audience members. Students learn to research, organize, and deliver the major types of speeches.

**♦ SP 112****PERSUASIVE SPEECH****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study and apply persuasion for a variety of purposes including ethos assessment, irony, stumping and the jeremiad. Students become aware of prevalence of persuasion. **Prerequisite:** SP 111.

**♦ SP 115****INTRODUCTION TO INTERCULTURAL COMMUNICATIONS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students explore stereotypes, general attitudes, values, life styles, cultural and gender patterns of communication in an effort to understand different cultures and gender, how individuals react to change and differences, and how language shapes our perspective.



## ♦ SP 130

**BUSINESS AND PROFESSIONAL SPEAKING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students continue to practice public communication skills in a more specific business and professional context by both presenting and active involvement as audience members. Students research, organize and deliver business and professional presentations. **Prerequisite:** SP 111.

## ♦ SP 219

**SMALL GROUP DISCUSSION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students demonstrate knowledge and skill in the social and task functions of small groups. Social functions include leadership, participation, verbal and non-verbal communication and small group interaction. Task functions include problem solving, conflict management, agenda setting and group presentations.

**SPAN SPANISH**

## ♦ SPAN 101

**FIRST YEAR SPANISH****(4.00 Lecture, 1.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students learn basic communication skills with emphasis on oral communication and elementary grammar. Students are exposed to the culture and traditions of the Spanish-Speaking countries. This is an introduction to the Spanish language.

## ♦ SPAN 102

**FIRST YEAR SPANISH****(4.00 Lecture, 1.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students expand their basic communication skills with continued emphasis on oral communication and elementary grammar. Students continue to explore Spanish and Latin American culture through appropriate themes and audio-visual material. This is a continuation of SPAN 101. **Prerequisite:** SPAN 101 or instructor approval.

## ♦ SPAN 103

**FIRST YEAR SPANISH****(4.00 Lecture, 1.00 Lecture/Lab Hrs./Wk.)****4 Credits**

Students further expand their basic communication skills with emphasis on oral communication and elementary grammar. Hispanic culture is approached through appropriate themes and audio-visual material. This is a continuation of SPAN 102. **Prerequisite:** SPAN 102 or instructor approval.

**SPAN 111****CONVERSATIONAL SPANISH****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students develop basic communication skills with emphasis on oral communication and pronunciation. Grammar is taught only as it will facilitate conversation.

**SPAN 112****CONVERSATIONAL SPANISH****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students improve their basic communication skills with emphasis on oral communication and pronunciation. Grammar is taught only as it will facilitate conversation. **Prerequisite:** SPAN 111 or instructor approval. This is a continuation of SPAN 111.

**SPAN 113****CONVERSATIONAL SPANISH****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students become more proficient in basic communication skills with emphasis on oral communication. Grammar is taught only as it will facilitate conversation. **Prerequisite:** SPAN 112 or instructor approval. This is a continuation of SPAN 112.

## ♦ SPAN 201

**SECOND YEAR SPANISH****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students continue to develop oral communication skills. Listening and reading comprehension, with writing exercises, are integrated to develop and reinforce intermediate speaking skills. Cultural awareness is achieved through reading material, class discussions and audio-visual material. This is a continuation of SPAN 103. **Prerequisite:** SPAN 103 or instructor approval.

## ♦ SPAN 202

**SECOND YEAR SPANISH****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students enhance their writing, reading, and speaking ability through conversational skills and extensive writing in order to reinforce intermediate proficiency. Cultural awareness is achieved through reading material, class discussions and audio-visual material. This is a continuation of SPAN 201. **Prerequisite:** SPAN 201 or instructor approval.

## ♦ SPAN 203

**SECOND YEAR SPANISH****(4.00 Lecture Hrs./Wk.)****4 Credits**

Students practice Spanish in a communicative context through reading and writing about Spanish and Spanish-American customs and traditions. Cultural awareness is achieved through reading material, class discussions and audio-visual material. This is a continuation of SPAN 202. **Prerequisite:** SPAN 202 or instructor approval.

**TTL** TRANSPORTATION & LOGISTICS**TTL 101****INTRODUCTION TO PROFESSIONAL TRUCK DRIVING AND LOGISTICS****(40 Lecture Hrs. Total)****4 Credits**

This course is part of the statewide Professional Truck Driver Certificate program. Students are introduced to the safe operation of a commercial motor vehicle and to the field of logistics. Includes understanding of basic and secondary control systems, coupling and uncoupling, cargo handling, pretrip inspections, managing speed, responding to weather and road conditions, and accident scene management. Covers applicable federal regulations (including hours of service) and Commercial Driver's License (CDL) requirements. **Prerequisite:** CDL Learners Permit; CDL medical certificate, Placement test score for placement in LA 90, WR 40, and MTH 10.

**TTL 121****PRACTICAL APPLICATIONS IN PROFESSIONAL TRUCK DRIVING AND LOGISTICS****(120 Lecture/Lab Hrs. Total)****6 Credits**

This course is part of the statewide Professional Truck Driving Certificate program. Students learn basic maneuvers while safely operating commercial motor vehicles, including practice in methods of visual search, shifting, turning, managing space and speed. Provides practical use of logistics business practices and communication skills. **Prerequisite:** TTL 101.

**TTL 141****TRANSPORTATION CUSTOMER SERVICE SKILLS****(30 Lecture Hrs. Total)****3 Credits**

Students build the knowledge, attitudes, and skills needed for delivering outstanding customer service, employing public relation skills, applying effective listening skills, resolving conflict, and using on-board communication devices. Students identify external and internal customers, learn to handle potentially unproductive interactions, and create positive outcomes for all customers. **Prerequisite:** Placement test score for placement in LA 90, WR 40, and MTH 10.

**TTL 180****COOPERATIVE WORK EXPERIENCE: TRANSPORTATION AND LOGISTICS****(33.00 Lab Hrs./Cr.)****1-6 Credits**

The student learns from driving experience related to a particular segment of the truck transportation industry. Frequent seminars will focus on individualized projects, small and/or large group projects and presentations, problem solving sessions, and discussion, all related to on-the-job problems and procedures. Supervision and evaluation of the student's job performance will be provided by qualified staff of the College and employing institution. **Prerequisite:** TTL 121. Individual instruction.

**WLD** WELDING**WLD 100****MATERIALS PROCESSING****(20.00 Lecture/Lab Hrs./Cr.)****1-4 Credits**

Students gain knowledge of the principles, equipment and skills necessary to identify and process varied materials utilized in the metal fabrication industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Completion of / or concurrently enrolled in IT 140 and IT 141.

**WLD 101****SHIELDED METAL ARC WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-10 Credits**

Students gain knowledge of the principles, equipment and skills used in the Shielded Metal Arc Welding Process, involving base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval.

**WLD 102****GAS METAL ARC WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-9 Credits**

Students gain knowledge of the principles, equipment and skills used in the gas metal arc welding process, involving various base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval.

**WLD 103****FLUX CORE ARC WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-9 Credits**

Students gain knowledge of the principles, equipment and skills used in the flux core arc welding process, involving various base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval.

**WLD 104****GAS TUNGSTEN ARC WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-8 Credits**

Students gain knowledge of the principles, equipment and skills used in the gas tungsten arc welding process, involving various base metals and joints common to industry. This is a competency-based program. Course curriculum follows the AWS specifications for qualification and certification of QC10 Entry Level Welder. **Prerequisite:** Instructor approval.

**WLD 150****BEGINNING WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-9 Credits**

The student is introduced to welding in this flexible, variable credit course designed to meet a wide variety of student goals. The point of entry into the curriculum depends on the student's previous experience with the discipline. The course is divided into small segments, called performance objectives, which allow the student to complete as many credits as they may have time to complete.

**Prerequisite:** Instructor approval.**WLD 160****INTERMEDIATE WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-12 Credits**

Students develop welding skills to industrial standards in any or all of the following processes: shielded metal arc welding, gas metal arc welding, and flux core arc welding in all positions; and tungsten inert gas welding on carbon steel, stainless steel and aluminum. Students learn basic welding metallurgy and weld testing methods.

**Prerequisite:** Entry level dependent on completion of WLD 150 or previous experience and instructor approval.**WLD 170****ADVANCED WELDING****(20.00 Lecture/Lab Hrs./Cr.)****1-15 Credits**

Students develop welding skills to job entry level including welding design and fabrication methods, joint design, and fundamental welding metallurgy. **Prerequisite:** WLD 160 or instructor approval.

**WLD 190****WELDING CERTIFICATION PREPARATION****(20.00 Lecture/Lab Hrs./Cr.)****1-9 Credits**

Students develop skill in the forms of welding tested in various welding certification examinations including pipe and plate welding skills. **Prerequisite:** WLD 160 or instructor approval.

**WR WRITING****WR 40****ENGLISH FUNDAMENTALS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students write descriptive, narrative, and expository paragraphs and essays to improve organization, coherence, sentence control, mechanics, and usage. Students review issues of grammar and mechanics through workbook and oral practice. No Prerequisites. This class is for students who have a COMPASS writing score below 42 or need practice before enrolling in WR 121.

**WR 115****INTRODUCTION TO COLLEGE WRITING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students study a variety of rhetorical situations, the contextual appropriateness of language, the individual and collaborative nature of the writing process, and the beginning of critical inquiry. **Prerequisite:** WR 40 or COMPASS score of 70-78.

**WR 121****ENGLISH COMPOSITION – EXPOSITION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students read and write essays to explore the writing process, investigate the essay form, and improve thinking, reading and writing skills. **Prerequisite:** Writing COMPASS placement of 79 or above or equivalent.

**WR 122****ENGLISH COMPOSITION – ARGUMENT****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will write essays that logically argue a thesis and effectively respond to outside texts. Throughout the course, writing will be approached as a process that includes guided discussion to generate ideas, prewriting, drafting, revision and finally careful proofreading. Assigned readings will require students to analyze, summarize, and synthesize secondary sources addressing a variety of complex issues. **Prerequisite:** WR 121.

**WR 123****ENGLISH COMPOSITION - RESEARCH WRITING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students write extended essays developed with ample and thoughtful research. After formulating a formal research question, students learn to use efficient research tools and effective search strategies to locate and evaluate print and electronic sources. Approaching writing as a process, students learn to use summary, paraphrase, analysis and synthesis to integrate secondary research into original arguments and exposition, making certain to effectively document sources to avoid plagiarism. Primary research techniques (interview, observation, survey) may also be reviewed. **Prerequisite:** WR 121.

**WR 227****TECHNICAL REPORT WRITING****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students experience the types of technical writing required in the professional environment, gain proficiency in writing applicable to their employment goals, learn to ethically incorporate research into a technical document, and become familiar with the protocols of technical documentation. **Prerequisite:** WR 121.

**WR 240****CREATIVE WRITING – NONFICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will explore the conventions and techniques of creative nonfiction writing: personal essay, memoir, reportage and more through a variety of formal and informal writing assignments. Beginning with Montaigne, and moving to the contemporary plethora of excellent popular nonfiction, guided discussion of assigned readings will place the genre in a historical and cultural context and illuminate elements of craft. Approaching writing as a recursive process that includes invention, drafting, revision, and finally careful proofreading, students will engage in workshop-style critique sessions of their own and other students' work. **Prerequisite:** WR 121 or instructor approval.

**WR 241****CREATIVE WRITING - FICTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students write short stories or novel chapters and read and critique short stories written by members of the class and published authors.

**WR 242****CREATIVE WRITING - POETRY****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students explore the techniques and conventions of poetry by reading and writing poetry with or without meter, rhyme, or stanzas and critique poems written by members of the class and major historic and contemporary poets. Oral presentation of published poets will encourage students to examine the origins of aesthetic traditions, placing the craft of poetry in a historical and cultural context.

**WR 249****WRITING CHILDREN'S BOOKS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn the techniques of writing for children: choosing an appropriate topic, creating vivid characters, using visual imagery, editing for young readers, and determining age appropriateness. Students will write fiction, non-fiction, and poems, and will design a picture book. Publishing will also be discussed.

**WR 270****LITERARY PUBLICATIONS****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students learn the fundamentals of editing a professional literary magazine. Students develop a philosophy of editing and, through active participation in publishing a college literary magazine, develop an understanding of the principles and procedures of editing and publishing using discipline appropriate technology. Through manuscript selection process, students will be required to read and critically respond to written texts and artwork, exploring the conventions and techniques of various creative expressions.

**Prerequisite:** WR 121 or instructor approval.

**♦ WS 210****CULTURAL PERSPECTIVE OF WOMEN OF COLOR****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students will examine Women of Color writers' contributions to feminist theory. Topics such as feminism, womanism, patriarchy, racism, classism, immigration, sexuality and dominant culture will be explored.

**♦ WS 221****WOMEN, DIFFERENCE AND DISCRIMINATION****(3.00 Lecture Hrs./Wk.)****3 Credits**

Students explore ways in which gender is socially constructed and how that construction affects women's lives materially, culturally and spiritually. Students analyze and critique concepts of difference, discrimination and power and privilege.

**♦ WS 230****WOMEN AND SOCIAL ACTION****(3.00 Lecture Hrs./Wk.)****3 Credits**

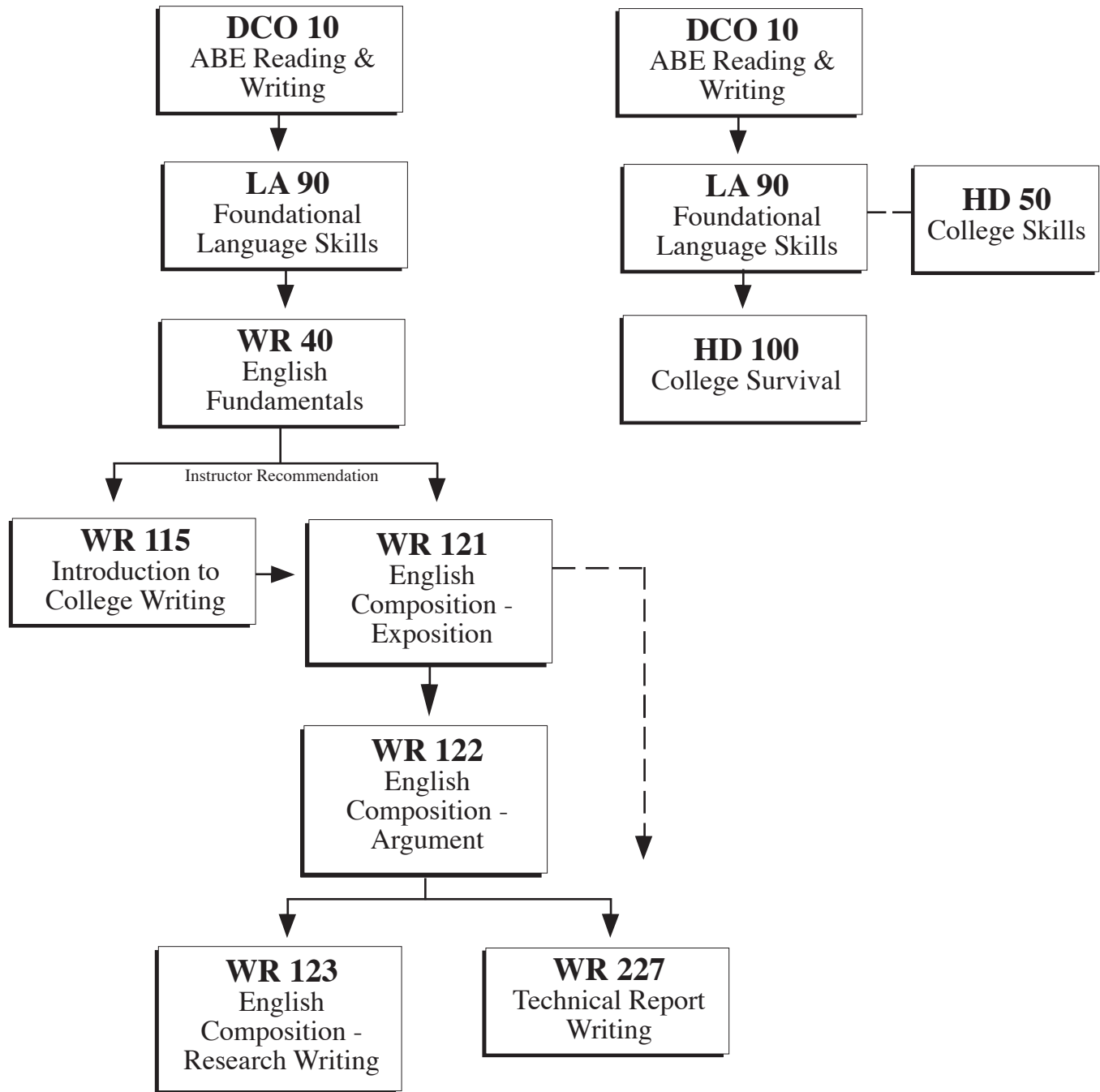
Students will examine women's roles in social action/activism throughout the 19th, 20th and 21st centuries. Systems of oppression such as sexism, classism, racism and heterosexism will be analyzed. Social movements such as the suffragist, civil rights, women's rights, gay and lesbian rights and eco-feminism will be critically analyzed and critiqued.

**WS WOMEN'S STUDIES****♦ WS 201****INTRODUCTION TO WOMEN'S STUDIES****(3.00 Lecture Hrs./Wk.)****3 Credits**

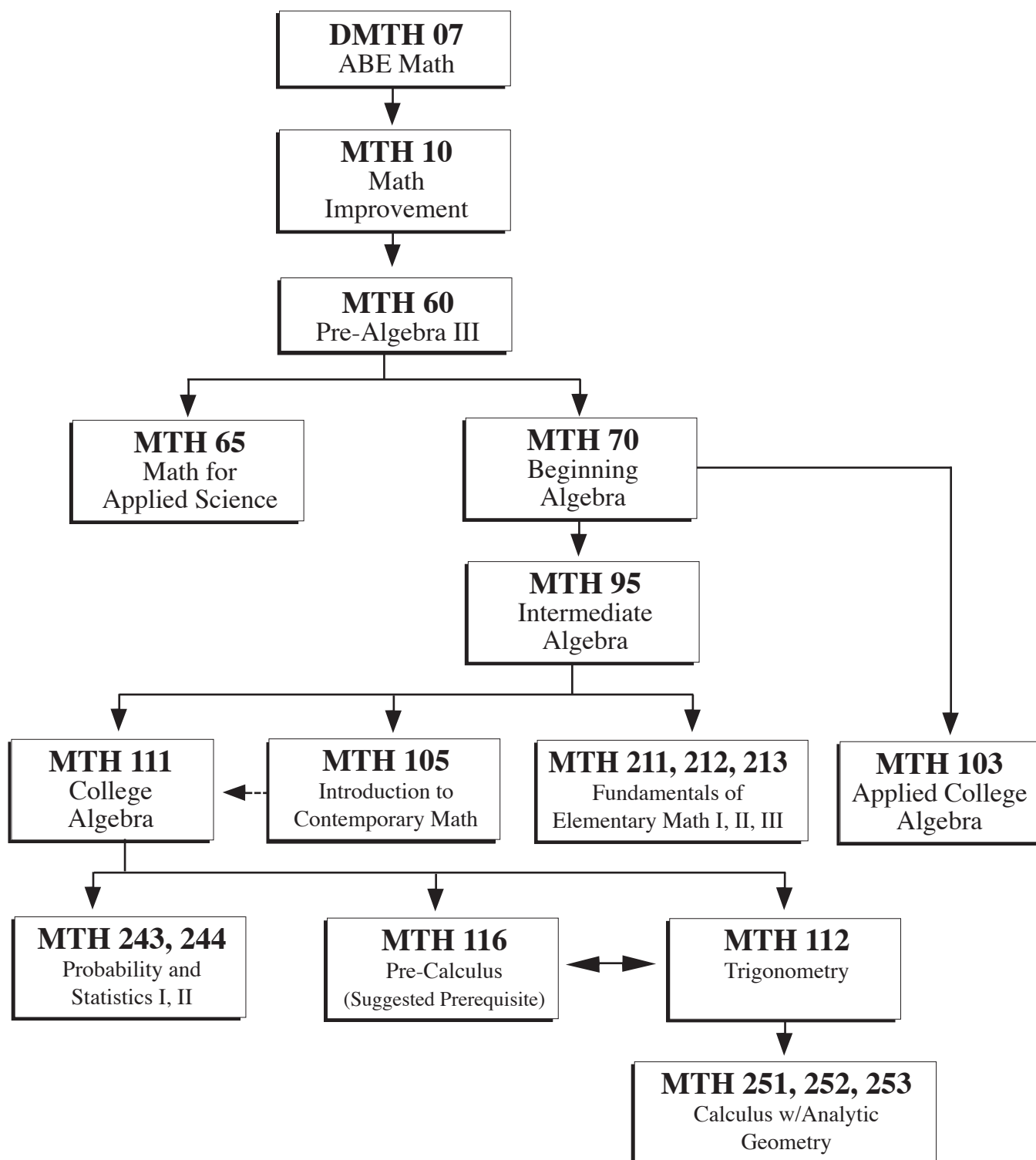
Students are introduced to the interdisciplinary field of Women's Studies. Students explore ways in which sex and gender are used in social, cultural, and political contexts. Students dissect the social construction of gender and will analyze and critique gendered experiences. In addition, students study interlocking systems of oppression such as homophobia/heterosexism, racism, classism, sexism, -bleism and ethnocentrism. **Prerequisite:** SOC 204 or SOC 205.

# SEQUENCE OF WRITING COURSES

# SEQUENCE OF READING COURSES



# SEQUENCE OF MATHEMATICS COURSES



# FACULTY

Clatsop Community College

**ANTILLA, WILLIAM****INSTRUCTOR, MARITIME SCIENCE**

Experience in commercial fishing; licensing through US Coast Guard; at Clatsop Community College since 1995.

**BARNES, CORIN****INSTRUCTOR, NURSING**

B.S. Nursing, University of Portland, 1995; M.S.N. Walden University, 2012; at Clatsop Community College since 2004.

**BEVERIDGE, RICHARD****INSTRUCTOR, MATHEMATICS**

B.S. Mathematics, University of Maine; B.A. French, University of Virginia; M.A. Mathematics, University of Maine; M.Ed. Oklahoma City University; at Clatsop Community College since 2004.

**BLACK, JO ANN****INSTRUCTOR, NURSING**

B.S. Nursing, Arizona State, 1971; M.S. in Community Health Nursing, University of Portland, 1997. Experience as Infection Control Nurse and Staff Nurse; at Clatsop Community College since 1992.

**BROWN, JULIE****INSTRUCTOR, WRITING**

B.S. English, Oregon State University, 1979; M.F.A. Creative Writing, University of Montana, 1985; Ph.D. English, University of Wisconsin, Milwaukee, 1990; at Clatsop Community College since 1995.

**BUNCH, MICHAEL****INSTRUCTOR, BIOLOGY**

B.A. Zoology, M.A. Biology, Humboldt State University, 1970; M.Ed. Educational Technology, Arizona State University, 1985; Doctor of Arts, Biology, Idaho State University, 1975; at Clatsop Community College since 1993.

**CAZEE, CAROLYN****INSTRUCTOR, NURSING**

B.S. Nursing, St. Joseph's College, 2001; M.S. Nursing, Walden University, 2006; at Clatsop Community College since 2005.

**COOK, NANCY****INSTRUCTOR, WRITING**

B.S. Interdisciplinary Studies emphasizing creative writing and environmental science, Evergreen State College; M.F.A. Writing, University of Alaska; at Clatsop Community College since 2004.

**DERLET, MARIAN****INSTRUCTOR, COLLEGE PREP/BASIC SKILLS/ESL/GED**

B.A. Spanish, George Fox College, 1973; M.A. TESOL, Portland State University, 1989; Graduate Certificate, Mind, Brain, and Teaching, Johns Hopkins University, 2012; at Clatsop Community College since 1998.

**DONALDSON, KURT****INSTRUCTOR, FIRE SCIENCE**

B.S. Education Western Oregon University, 1998; M.Ed. Western Oregon University, 2004; at CCC since 2009.

**FULTON, JESSE****INSTRUCTOR, WELDING**

24 years of experience in metal trades and industry; AWS certified; at Clatsop Community College since 2010.

**GIGLIO, JESSICA****INSTRUCTOR, MATHEMATICS**

B.S. Mathematics, Lake Forest College, 2003; M.S. Mathematics, Oregon State University, 2005; at Clatsop Community College since 2008.

**GUIDI, DALE (DEAC)****INSTRUCTOR, SPEECH**

B.A. Speech Communication, Montana State University; M.A. Speech Communication, Idaho State University; at Clatsop Community College since 2000.

**HAM, BILL****INSTRUCTOR, MARITIME SCIENCE**

Thirty years service in the U.S. Coast Guard and licensing through U.S. Coast Guard; at Clatsop Community College since 1998.

**HYLTON, ELIZABETH (LIZ)****INSTRUCTOR, MATHEMATICS**

B.S., Mathematics, Portland State University, 1994; M.Ed. Mathematics, Portland State University, 1998; M.S.T. Mathematics, Portland State University, 2003; at Clatsop Community College since 2001.

**JENSEN, ERIK****INSTRUCTOR, NURSING**

B.S. Nursing, Oregon Health & Science University, 1993; B.S. Health Sciences, George Washington University, 1995; M.S. Nursing, Community Health Care Systems, Oregon Health & Science University, 1999; at Clatsop Community College since 2010.

**KEEFE, PAT****INSTRUCTOR, PHYSICS/PHYSICAL SCIENCE**

B.S. Physics, Baker University, 1986; M.S. Physics, Portland State University, 1990. Experience in training staff of volunteers at OMSI for public hands-on experiments; at Clatsop Community College since 1991.

**KNUTSON-HAWES, CAROL****INSTRUCTOR, WRITING & LITERATURE**

B.A. English and Language Arts Degree in secondary Ed., 1977; M.A. English, University of Oregon, 1985; at Clatsop Community College since 1998.

# FACULTY

Clatsop Community College

**LACKNER, TIMOTHY (TJ)**  
**INSTRUCTOR, MATHEMATICS**

B.A. Speech Communication, Moorhead State University; B.S. Mathematics, Dickinson State University, 2004; M.S. Mathematics, Washington State University, 2007; at Clatsop Community College since 2007.

**LITTLE, BERT**  
**INSTRUCTOR, MARITIME SCIENCE**

Experience in Maritime industry; Licensing through U.S. Coast Guard; at CCC since 2009.

**MANSELL, ROBERT**  
**INSTRUCTOR, PSYCHOLOGY**

B.A. Psychology, University of Oklahoma, 1998; M Ed Instructional Psychology and Technology, University of Oklahoma, 2007; at Clatsop Community College since 2010.

**REDWINE, TOMMIE**  
**INSTRUCTOR, BUSINESS ADMINISTRATION**

M.A.T. (Teaching), Pacific University, 1996; M.B.A. Pepperdine University, 1994; B.A., University of Kansas, Psychology, Speech and Drama, 1969; marketing executive in the entertainment industry; experience in advertising and graphic design; at Clatsop Community College since 2002.

**ROWLAND, RICHARD**  
**INSTRUCTOR, ART (CERAMICS EMPHASIS)**

B.A. Ceramics/Sculpture, Pacific University, 1974; M.F.A. University of Tasmania, 2005; at Clatsop Community College since 2001.

**SHAUCK, KRISTIN** **INSTRUCTOR, ART (2-D)**  
B.F.A. Baylor University, 1989; M.F.A. Texas A&M-Commerce, 1993; at Clatsop Community College since 2004.

**SWERDLOFF, LUCIEN**  
**INSTRUCTOR, HISTORIC PRESERVATION & COMPUTER AIDED DESIGN**

B.A. Mathematics, State University of New York, 1981; Masters of Architecture, SUNY, Buffalo, 1986; M.S. Computer Science SUNY, Buffalo, 1988; at Clatsop Community College since 2000.

**TOYAS, TEENA**  
**INSTRUCTOR, PHYSICAL EDUCATION/HEALTH**

B.S. Health and Physical Education; Austin Peay State University, 1978; M.A., Health, PE, and Recreation, Murray State University, 1979; at Clatsop Community College full-time since 2001.

**TUMBARELLO, HOLLY**  
**INSTRUCTOR, MEDICAL ASSISTING**

B.S. Nursing, Southern Illinois University, 1990; at Clatsop Community College since 2007.

**WARWICK, NICHOLE**  
**INSTRUCTOR, BIOLOGY, A & P**

B.S. Biology, Idaho State University, 2002; M.S. Biology, Idaho State University, 2007; at Clatsop Community College since 2007.

**WILLIAMS, TOM**  
**INSTRUCTOR, MARITIME SCIENCE**

A.A. Medical Lab Technology, Shoreline Community College, 1977; 1600 Ton Master Oceans; 100 Ton Master Ocean Auxiliary Sail; at Clatsop Community College since 2000.

**BOARD OF DIRECTORS**

**Term Expires in June**

Paul Gillum, Chair  
Kirsten Ayles  
Rosemary Baker-Monaghan  
Dr. Stephen Berk  
Dirk Rohne  
Dr. Frank Satterwhite  
Jim Scheller

2015  
2015  
2013  
2013  
2015  
2013  
2015



# ADMINISTRATIVE & SUPERVISORY STAFF

*Clatsop Community College*

**ADAMS, SYLVIA**  
**FINANCIAL AID COORDINATOR**

AAS Office Systems, Clatsop Community College, 1998; B.A. Liberal Studies Eastern Oregon University, 2007; at Clatsop Community College since 1996.

**ANTILLA, MARGARET**  
**DIRECTOR, ACCOUNTING SERVICES**

A.A.S. Accounting, College of the Albemarle, NC; at Clatsop Community College since 1995.

**CHAMBERS, BEN**  
**GUIDANCE COORDINATOR, EDUCATIONAL TALENT SEARCH**  
B.A. German Language, Denison University, 2001; M.Ed in Counseling, Our Lady of the Lake University, 2009; at Clatsop Community College since 2010.

**CHOATE, LAURIE**  
**DIRECTOR, NURSING & ALLIED HEALTH**

B.S. Nursing, University of Washington 1976; M.S.N. Maternal Child Nursing, University of Washington, 1978; at Clatsop Community College since 1997.

**DORCHEUS, GREGORY**  
**DIRECTOR, FACILITIES MAINTENANCE**

Extensive training and working in the physical plant maintenance field; at Clatsop Community College since 1997.

**FERBER, KARI**  
**EXECUTIVE ASSISTANT TO THE PRESIDENT**

Experience in office/secretarial field; at Clatsop Community College since 1999.

**FRIMOTH, MARGARET**  
**LIVES IN TRANSITION COORDINATOR/COUNSELOR**

B.A. in Human Studies from the World College West; M.A. in Values from the San Francisco Theological Seminary; at Clatsop Community College since 2003.

**FRYLING, MARY**  
**WORKFORCE DEVELOPMENT AND  
COMMUNITY EDUCATION COORDINATOR**

B.S. in Technical Journalism, Oregon State University, 1974; at Clatsop Community College since 2010.

**GALIZIO, LARRY**  
**PRESIDENT**

B.A. Industrial/Organizational Psychology, University of California, Berkeley, 1986; M.A. Speech Communication, San Francisco State University, 1993; Ph.D. Urban Studies, Portland State University, 2009; at Clatsop Community College since 2010.

**GILL, TOM**  
**DIRECTOR, INSTITUTIONAL RESEARCH,  
ASSESSMENT & INSTRUCTIONAL DEVELOPMENT**

B.F.A. Theater Arts, University of Wisconsin, 1971; M.F.A. Theater Arts, University of Oregon, 1974; at Clatsop Community College since 2005.

**GOLUB, MORIA**  
**GUIDANCE COORDINATOR, UPWARD BOUND**

B.A. Middle Eastern and American History, Portland State University, 1994; at Clatsop Community College since 2007.

**GRAVES, JONATHAN**  
**GUIDANCE COORDINATOR, EDUCATIONAL TALENT SEARCH**

B.A. Geology and Environmental Sciences, Bowdoin College, 1987; M.S. Marine Resource Management, Oregon State University, 1991; at Clatsop Community College since 2006.

**GYDÉ, ANN**  
**MANAGER, PUBLICATION SERVICES**

B.F.A. Design, Northern Arizona University, 1983; at Clatsop Community College since 1994.

**HAYES, ELIZABETH**  
**CASE CAREER COACH**

B.S. Business Management, City University, 2006; at Clatsop Community College since 2012.

**LARSON, DONNA**  
**VICE PRESIDENT FOR ACADEMIC AND STUDENT AFFAIRS**

B.S. Medical Technology, Rhode Island College, 1980; B.A. Chemistry, Rhode Island College, 1980; M.S. Management, Troy State University, European Division, 1986; Ed.D. Higher Education, Texas Tech University, 1996; at Clatsop Community College since 2012.

**LEAHY, KEVIN**  
**DIRECTOR, CEDR & SBDC**

B.S. Business Administration, Oregon State University, 1977; at Clatsop Community College since 2011.

**LEAR, JACOB**  
**DATA BASE ADMINISTRATOR**

A.A., General Studies, Clatsop Community College, 2002; B.S. Computer Science, Southern Oregon University, 2005; at Clatsop Community College since 2008.

**LIPE, LESLIE**  
**DIRECTOR, HUMAN RESOURCES**

B.A. Art History, B.A. Studio Art, Eastern Washington University 1990; Human Resources Management Certification, Linfield College, 2009; at Clatsop Community College since 2009.

**MAGNUSSEN, AMY**  
**RECRUITMENT COORDINATOR**

B.A. Art History, Northern Illinois University, 1994; at Clatsop Community College since 2007.

**MCCLELLAND, ROBERT**  
**DIRECTOR, TRIO PRE-COLLEGE PROGRAMS**

B.S. Secondary English Education, Ohio State University, 1973; M.Ed. Educational Administration, Louisiana State University, 1975; at Clatsop Community College since 2010.

# ADMINISTRATIVE & SUPERVISORY STAFF

*Clatsop Community College*

## **MEYER, BRIAN**

### **GUIDANCE COORDINATOR, TRiO PRE-COLLEGE PROGRAMS**

B.A. Psychology, Wheeling Jesuit University, 2001; M.A. School Counseling, Appalachian State University, 2003; at Clatsop Community College since 2012.

## **MUELLER, LLOYD**

### **DIRECTOR, FINANCIAL AID**

B.F.A. Milwaukee Institute of Art and Design, 1978; at Clatsop Community College since 2011.

## **NYBERG, LISA**

### **DIRECTOR, COOPERATIVE EDUCATION, CAREER COUNSELING AND CASE CONSORTIUM GRANT**

B.A. Elementary Education, Linfield College, 1990. Certification with the National Association of Workforce Development Professionals; at Clatsop Community College since 2008.

## **OUSLEY, CHRIS**

### **DEAN OF STUDENTS AND ENROLLMENT MANAGEMENT**

B.S. Advertising, Northern Arizona University, Flagstaff, 1991; M.A. Journalism, University of Arizona, Tucson, 1996; Ph.D. Higher Education, University of Arizona, Tucson, 2010; at Clatsop Community College since 2010.

## **PIERIE, TERRI**

### **STUDENT SERVICES SPECIALIST**

Student services and financial aid experience; at Clatsop Community College since 1989.

## **POWELL, DICK**

### **BUSINESS COUNSELOR**

B.A. Philosophy/Business, California State University, Chico, 1996; M.A. International Management, Whitworth University, 1999; at Clatsop Community College since 2010.

## **PURCELL, EILEEN (PERCY)**

### **OUTREACH LITERACY TUTOR COORDINATOR**

B.A. and M.A., History; M.L.S. State University of New York; at Clatsop Community College since 2004.

## **RAMSEY, DAVID**

### **CASE CAREER COACH**

B.A. History, Montana State University, 2002; M.A. Teaching, Washington State University, 2010; at Clatsop Community College since 2012.

## **RIEHL, CHRISTINE**

### **GUIDANCE COORDINATOR/ DISABILITIES SERVICES COORDINATOR**

B.S. Biochemistry/Biophysics, Oregon State University, 1987; M.S. Human Development, Counseling, and Family Studies, University of Rhode Island, 1991; at Clatsop Community College since 2004.

## **RIEHL, GREG**

### **DIRECTOR, COMPUTER SERVICES**

B.A. Foreign Languages and Literatures, minor in Naval Science, Oregon State University; at Clatsop Community College since 2004.

## **ROBERTSON, DEBBY**

### **COORDINATOR, PATHWAYS/PERKINS**

B.S. Oregon State University, 1974; M.M. Willamette University 1983; at Clatsop Community College since 2008.

## **RUSSELL, DENISE**

### **COLLEGE STORE MANAGER**

B.S. Psychology, East Tennessee St. University, 1990; M.A. Psychology, East Tennessee St. University, 1992; at Clatsop Community College since 2011.

## **TOKARSKI, STEPHEN**

### **GUIDANCE COORDINATOR, UPWARD BOUND**

B.A. History/Political Science, University of Montana, 2008; at CCC since 2010.

## **WARREN, PATRICIA**

### **DIRECTOR, COLLEGE ADVANCEMENT**

B.A. Anthropology; Archaeology, University of Washington, 1972; B. S. General Studies Topics in Paleo-Ecology, University of Washington, 1975; Juris Doctor, Law, University of Washington, 1978; M.A. Anthropology: Museum Studies, University of Washington, 1990; at Clatsop Community College since 2011.

## **WATKINS, CANDICE**

### **LIBRARY DIRECTOR**

B.A. History, University of Texas, 1997; M.S. Library Science, University of North Texas, 2004; at Clatsop Community College since 2006.

## **WEATHERLY, REBECCA J. (JOANIE)**

### **DIRECTOR, PLUS PROGRAM**

B.A. Speech Communication, University of Utah, 1993; M.S. Counseling, Portland State University, 1999; at Clatsop Community College since 1999.

## **WILKIN, KRISTEN**

### **DEAN, WORKFORCE EDUCATION AND TRAINING**

B.A. Political Science, Pepperdine University, 1994; M.P.A. Public Administration, Portland State University, 1996; at Clatsop Community College since 1999.

## **ZAHN, JOANN**

### **VICE PRESIDENT OF FINANCE & OPERATIONS**

A.S. General Business, Mt. Hood Community College, 1996; A.S. Accounting Technology Mt. Hood Community College, 1996; B.S. Business Administration/Accounting Eastern Oregon University, 2005; M.B.A. North Park University, 2012; at Clatsop Community College since 2011.

# INDEX

## A

Academic Information.....	12-16
Academic Standards .....	15
Academic Terms .....	12
Accounting Courses .....	75-76
Accounting Technician.....	36-37
Accreditation.....	3
Activities and Organizations .....	19
Administrative Staff.....	127-128
Admission to the College.....	4
Adult Education (and Family Literacy).....	20
Advising.....	12
Aerobics Courses .....	113
Affirmative Action Policy .....	inside front cover
Alcohol Use Policy.....	22
Algebra .....	107
American Sign Language .....	74
American Welding Society Entry Level.....	65-66
Anatomy & Physiology.....	79
Anthropology Courses .....	69
Application for Admission .....	4
Applied Science Degree (AAS) .....	31
Apprenticeship.....	16, 32-33
Archaeology Course .....	69
Architecture Course.....	69
ARPA Training .....	57, 103
Art Courses.....	69-74
ASG (Associated Student Government).....	19
Associate of Applied Science Degree (AAS)....	31
Associate of Arts Oregon Transfer Degree (AAOT).....	23-25
Associate of General Studies (AGS) .....	30
Associate of Science - Oregon Transfer Degree in Business (ASOT-Bus).....	26-29
Associated Student Government (ASG).....	19
Audit .....	11
AutoCAD.....	44-45, 89
Automotive Technician.....	34-35
Automotive Courses .....	74-75
Awards.....	15-16

## B

Bachelor's Degree Programs, Partnerships .....	16
Basketball Courses.....	113
Biology Courses .....	77-79
Board of Directors.....	126
Bookstore.....	19
Botany Course.....	83
Building Construction Courses .....	79-83
Business & Industry, Services For.....	18
Business Courses.....	75-77, 112-113
Business Management Associate Degree..	38-39

## C

CADD Technician .....	44-45, 89
Cafeteria (Food Service) .....	19
Calculus Courses .....	108
Calendar, Academic.....	133
Campus Locations, Map.....	132
Campus Safety Report .....	22
Cancellations, Refunds.....	5
Career Pathways Certificate .....	12
Career Services.....	16
Carl Perkins Prof./Tech. Improvement Grant....	17
Ceramics Courses .....	71-72
Certificates.....	12
Chemistry Courses .....	84
Childhood Education .....	46-47, 89-91
Clatsop Café.....	19
Clatsop Economic Devel. Resources (CEDR)..	18
Clery Act ( <i>See Campus Safety Report</i> )	
Clubs .....	19
Code of Conduct.....	20
College Preparation .....	20
Community Education ( <i>see Education for Life</i> )	
COMPASS placement test .....	4, 16
Computer Aided Design & Drafting.....	44-45, 89
Computer Graphics Courses .....	71
Computer Science Courses.....	87-88
Construction Courses .....	79-83
Construction Trades General Apprentice....	32-33
Consumer Information, Students.....	21, 22
Contact Information/Phone Numbers .....	132
Continuing Education Units (CEUs) .....	14
Cooperative Education .....	85
Counseling.....	18
Course Descriptions .....	69-122
Course Numbering .....	14
Credit.....	12-14
Credit by Examination .....	12-13
Credit for Prior Learning .....	13, 87
Criminal Justice Courses.....	85-87
Cross Training Courses.....	114

## D

Database Courses.....	88
Dean's List.....	15
Degree Partnership, OSU & PSU.....	16
Degree Seeking Students.....	10
Degrees.....	12, 23-31
Design Courses .....	69
Developmental Education.....	20
Developmental Education Courses .....	88
Directory Information .....	11
Disability Support Services .....	18
Disclosure Statement .....	22
Discrimination Complaint Procedure .....	20-21
Distance Education.....	16
Dora Badollet Library.....	16
Drafting Courses.....	88-89
Drawing Courses.....	69-71
Drug Use Policy.....	22

## E

Early Childhood Education .....	46-47, 89-91
Economics.....	89
Education For Life .....	19
Educational Talent Search (ETS) .....	17
Electrician Apprenticeship Technologies ...	32-33
Electrical Engineering.....	91
Emergency Medical Tech. Courses .....	91-92
ENCORE .....	19
Energy Courses.....	117-118
Engineering Course.....	91
English Composition Courses .....	121
English Literature ( <i>also see Writing</i> ).....	92-93
English Language Learners (ELL).....	20
Environmental Science Courses .....	94
Ethics Course .....	115

## F

Faculty.....	125-126
Family Edu. Rights & Privacy Act (FERPA) .....	22
Family Literacy .....	20
Fees .....	6
Film Studies Course .....	92
Financial Assistance .....	7-9
Fire Protection Courses.....	94-96
Fire Science.....	48-49, 94-96
Fitness Courses.....	114
Food Service .....	19
Forensic Science Course .....	97
French Courses .....	94

# INDEX

## G

G.E.D.....	20, 88
General Science Courses.....	96-97
Genetics Course.....	78
Geography Courses.....	96
Geology Course.....	97
GMDSS Training.....	57, 103
Gold Card.....	6
Government Courses.....	115-116
Government, Student (ASG).....	19
Grading Policies.....	14-15
Graduation.....	15-16
Graduation Rates.....	22
Grants (Financial Assistance).....	9
Guitar Lessons.....	109

## H

Hatha Yoga Courses.....	114
Hazwoper Training Course.....	106
Health and Family Studies Courses.....	98
Health and Physical Education Courses.....	98
Historic Preservation & Restoration..	50-51,81-82
History Courses.....	98-99
History Courses (Art).....	70
Home Schooled Students.....	4
Honor Roll.....	15
Honors & Awards.....	15-16
Human Development Courses.....	97-98
Human Services Courses.....	98
Humanities.....	99-100

## I

Incomplete.....	14-15
Independent Study.....	14
Industrial & Manufacturing Technologies.....	100
Industrial Mechanics & Maint. Apprent.....	32-33
Installment Payment Plan.....	5
International Students (admissions).....	4

## J

Journalism.....	100
-----------------	-----

## K

Keyboarding.....	112
------------------	-----

## L

Language Arts Course.....	100
Late Registration.....	6, 10
Library.....	16
Library Course.....	100
Literacy Program.....	20
Literacy Tutor Program (Volunteer).....	20
Literature Courses.....	92-93
Lives in Transition (LIT).....	18, 97

## M

Marine Fire Training.....	57
Marine Basic Safety Training.....	57
Maritime Science Courses.....	101-106
Maritime Sciences, Cert./Seamanship.....	52-53
Maritime Sciences Vessel Op. Degree.....	54-55
Maritime Science Specialized Training.....	56-57
Mathematics Courses.....	107-108
Mathematics Sequence Chart.....	124
Mathematics Tutoring.....	16
Medical Assistant.....	58-89, 100-101
Meteorology Course.....	97
Microbiology Courses.....	79
Microcomputer Courses.....	106-107
Mission Statement.....	inside front cover
Money Matters.....	5-9
Multiple Degrees.....	12, 15
Music Courses.....	109

## N

Non-Degree Seeking Students.....	10
Non-Refundable Fees.....	6
Nursing.....	62-63, 109-112
Nursing, Admission Requirements.....	60-61
Nutrition.....	109

## O

Office Administration Courses.....	112-113
Oregon State Degree Partnership (OSU).....	16
Oregon Transfer Module.....	67-68
Organizations & Activities.....	19
Out-of-State Tuition.....	6
Outcomes.....	3, 23-65

## P

Painting Courses.....	70-74
Payment Options, Obligations.....	5
Payment Plan (Installment).....	5
Phi Theta Kappa (PTK).....	15
Philosophy Courses.....	115
Phone Numbers.....	132
Photography Courses.....	70
Physical Education Courses.....	113-114
Physical Science Courses.....	96-97
Physics Courses.....	97, 115
Pilates Courses.....	114
Plus Program.....	16
Political Science Courses.....	115-116
Portland State Univ. Degree Partnership.....	16
Practical Nursing (LPN).....	62-63
Printmaking Courses.....	72
Psychology Courses.....	116

## R

RAIN Magazine (Literary Pub. Course).....	122
Radar Courses.....	57, 102-103
Reading Sequence Chart.....	123
Readmission.....	4
Readmission, Nursing Program (Re-entry).....	61
Records, Student.....	11
Refundable Fees.....	6
Refunds.....	5
Refunds, Financial Assistance.....	5, 7-9
Registration.....	10-11
Registration, Degree Seeking Students.....	10
Registration, Non-Degree Seeking Students.....	10
Religion Courses.....	116-117
Residency.....	6
Retail Management Certificates.....	42-43
Rights & Responsibilities.....	21

# INDEX

## S

Satisfactory Progress ( <i>for Financial Aid</i> ) .....	8
Safety Report .....	22
Scholarships .....	8
Science Courses .....	94
Sculpture Courses .....	73-74
Seamanship Certificates .....	52-53
Senior Discount ( <i>Gold Card</i> ) .....	6
Sequence Chart, Mathematics .....	124
Sequence Chart, Reading .....	123
Sequence Chart, Writing .....	123
Sign Language Courses .....	74
Small Business Management .....	18
Social Security Number ( <i>Disclosure Stmt</i> ) .....	22
Sociology Courses .....	118
South County Campus .....	18, 132
Spanish Courses .....	119
Speech Courses .....	118-119
STCW Approved Courses .....	57, 103
Staff, Supervisory & Administrative .....	127-128
Student Code of Conduct .....	20
Student Consumer Information .....	21-22
Student Government ( <i>ASG</i> ) .....	19
Student Records .....	11
Student Rights & Responsibilities .....	20
Student Support Services ( <i>Plus Program</i> ) .....	17
Summer Term .....	12
Supervisory Staff .....	127-128
Sustainable Energy Courses .....	117-118

## T

Table of Contents .....	1
Talent Search, Educational ( <i>ETS</i> ) .....	17
Technology Fees .....	6
Tennis Courses .....	114
Testing Center .....	16
Transcripts .....	11
Transfer ( <i>to Clatsop</i> ) Admission Information .....	4
Transfer Credit .....	14
Transfer Degrees .....	24-31
Transportation Courses .....	120
Trigonometry Course .....	108
TRiO Programs .....	17
Truck Driving, Professional .....	64, 120
Tuition & Fees .....	6
Tutoring .....	16, 20

## U

Underage Students .....	10
Upward Bound .....	17

## V

Vessel Operations, Associate Degree .....	54-55
Veterans Services .....	19
Vocational Programs ( <i>See Applied Science</i> ) .....	
Volleyball Courses .....	114
Volunteer Literacy Tutor Program .....	20

## W

Warranty, AAS Degree .....	12
Watercolor Courses .....	70, 74
Web Design Courses .....	87
Weight Training Courses .....	114
Welding .....	65-66, 120-121
Withdrawal from Courses/College .....	10-11, 15
Women's Studies Courses .....	122
Work Experience .....	13, 85
Work Study ( <i>See Financial Assistance</i> ) .....	
Workforce Development .....	18
Writing Courses .....	121-122
Writing Sequence Chart .....	123

## Y

Yoga Courses .....	114
--------------------	-----

---



---

# CAMPUS INFORMATION

---



---

Admissions.....	503-338-2411 or 1-855-252-8767, ext. 2411 (toll free)	Instructional Services.....	503-338-2440
Apprenticeship .....	503-338-2409	Library.....	503-338-2347
A.S.G. Office.....	503-338-2495	Literacy Coordinator.....	503-338-2557
Cafeteria .....	503-338-2338	Lives in Transition .....	503-338-2377
Career Planning.....	503-338-2480	Maritime Science Center.....	503-325-7962
Carl Perkins Program.....	503-338-7670	Payroll.....	503-338-2439
Community Education .....	503-338-2408	Phi Theta Kappa.....	503-338-2319
Computer Lab, Library .....	503-338-2329	Plus Program.....	503-338-2346
Cooperative Work Experience .....	503-338-2480	President's Office .....	503-338-2425
Copy Center .....	503-338-2304	Publication Services.....	503-338-2304
Counseling .....	503-338-2474	Records/Registration.....	503-338-2438
Developmental Education.....	503-338-2347	South County Campus .....	503-338-2402
Disabilities Specialist.....	503-325-2747	Scholarships .....	503-338-2324
Educational Talent Search.....	503-338-2422	Student Accounts .....	503-338-2330
Finance & Operations .....	503-338-2422	Student Services Center.....	503-338-2411 or 503-338-2438
Financial Assistance.....	503-338-2324	Switchboard .....	503-325-0910
Fire School.....	503-338-7650	Testing Center .....	503-338-2426
Foundation .....	503-338-2306	Tutoring Lab .....	503-338-2455
G.E.D. Program.....	503-338-2347	Upward Bound .....	503-338-2370
G.E.D. Testing.....	503-338-2426	Veteran's Services.....	503-338-2414
Human Resources .....	503-338-2406	Work Experience.....	503-338-2480
Industrial Manufacturing Tech. Center (IMTC) .....	503-338-7670	Workforce Training.....	503-338-2408



**Main Campus:**  
 A: Towler Hall  
 B: Patriot Hall  
 C: Dora Badollet Library  
 D: Student Services Center  
 E: Art Building  
 F: Alder Hall  
 G: Columbia Hall

---



---

# CAMPUS LOCATIONS

---



---

**Main Campus:**  
 Clatsop Community College  
 1651 Lexington Avenue  
 Astoria, OR 97103  
 503-338-2400  
 Toll Free: 1-855-252-8767  
 Fax: 503-325-5738  
 www.clatsopcc.edu  
 Admissions: 503-338-2411  
 admissions@clatsopcc.edu

**Performing Arts Center**  
 16th & Franklin (588 16th St.)  
 Astoria, OR 97103

**South County Campus:**  
 Clatsop Community College  
 1455 N. Roosevelt (Hwy. 101)  
 Seaside, OR 97138

**MERTS Campus:**  
 Maritime Science Department  
 6550 Liberty Lane  
 Astoria, OR 97103

Fire School  
 6562 Liberty Lane  
 Astoria, OR 97103

Industrial & Manufacturing Technology Center  
 6540 Liberty Lane  
 Astoria, OR 97103

Living Machine®  
 6540 Liberty Lane  
 Astoria, OR 97103

# ACADEMIC CALENDAR 2012 - 2013

	<b>SUMMER 2012</b>	<b>FALL 2012</b>	<b>WINTER 2013</b>	<b>SPRING 2013</b>
<b>REGISTRATION BEGINS*</b>	May 22	May 30	November 27	March 12
<b>CLASSES BEGIN</b>	June 25	September 24	January 7	April 1
<b>LATE REGISTRATION</b>	July 2 - July 5	October 1 - 5	January 14 - 18	April 8 - 12
<b>NO SCHEDULED CLASSES - COLLEGE OPEN</b>	August 20 - September 21	December 10-21	Spring Break - March 25 - 29	June 17 - 21
<b>HOLIDAYS &amp; COLLEGE CLOSURES</b>	July 4, All Fridays in July & Aug.	November 12, 22 & 23, Dec. 24 - Jan. 1	January 1, 21 February 18	May 27
<b>FINALS BEGIN</b>	Last class	December 3	March 18	June 10
<b>END OF TERM</b>	August 16	December 7	March 22	June 14
<b>GRADUATION</b>				June 14

\*Students with 45 credits or more may register one day earlier than the date listed.



**Clatsop  
Community  
College**



Clatsop Community College Admissions Office  
1651 Lexington Ave., Astoria, OR 97103  
(503) 338-2411 or Toll Free 1-855-252-8767, FAX (503) 325-5738